

INTERNATIONAL COMMITTEE ON TAXONOMY OF VIRUSES (ICTV) WEBINAR I

What we do and how you can access the product of our work

March 21, 2024

Feedback: info@ictv.global



TODAY'S AGENDA

- Welcome (Elliot Lefkowitz)
- What is the ICTV? (Murilo Zerbini)
- Virus taxonomy (Lefkowitz, Stuart Siddell)
- The ICTV Report (Donald Smith)
- The ICTV Web site (Steve Powell)
- Tools to browse the taxonomy (Don Dempsey, Curtis Hendrickson)
- Future plans
- Questions
 - Use the webinar's Q&A feature



SPEAKERS

- Murilo Zerbini, PhD, ICTV President
 - Universidade Federal de Viçosa, Brazil
- Elliot Lefkowitz, PhD, ICTV Data Secretary
 - University of Alabama at Birmingham (UAB), USA
- Stuart Siddell, PhD, Past ICTV Vice President
 - University of Bristol, UK
- Donald Smith, PhD, Managing Editor, ICTV Reports
 - University of Oxford / University of Edinburgh, UK
- UAB Team
 - Steve Powell, PhD, Outreach Coordinator
 - Don Dempsey, MS, Software Developer
 - Curtis Hendrickson, BS, Bioinformatician
 - Logan Mims, BA, Programmer/Analyst



VIRUS TAXONOMY: A COMMUNITY KNOWLEDGEBASE SUPPORTING VIRUS RESEARCH

Support is provided by the National Institute of Allergy and Infectious Diseases, U.S. National Institutes of Health, Award U24AI162625

08/03/2021 - 05/31/2026



ICTV VIRUS KNOWLEDGEBASE AIMS

- Infrastructure
 - Provide a stable, responsive, scalable information technology platform
- Information
 - Enrich the virus taxonomy by expanding the available information on virus properties
- Tools
 - Develop and deploy analytical tools that support the creation, expansion, and management of virus taxonomy
- Accessibility
 - Provide flexible, interoperable access to taxonomic data
- Outreach and Training
 - Establish programs that introduce these resources to current and potential users and provide training in their use



TAXONOMY = CLASSIFICATION + NOMENCLATURE





WELCOME TO THE ICTV

What is the

International Committee on Taxonomy of Viruses

International Congress of Microbiology, Moscow, USSR

- International Committee on Nomenclature of Viruses (ICNV)
- 1973: International Committee on **Taxonomy** of Viruses (ICTV)



ÎTV

Taxonomy lies in the uneasy interface between biology and logic. The processing of information follows somewhat different rules in these two systems and the role of taxonomy is to reconcile them as tidily as possible.





The ICTV has the following objectives:

I. To develop an **internationally agreed** taxonomy for viruses

2. To establish internationally agreed names for virus taxa

3. To **communicate the decisions** reached concerning the classification and nomenclature of viruses to virologists by holding meetings and publishing reports

4. To maintain an official **index** of agreed **names** of virus **taxa**



- In animal, plant, fungal and prokaryote taxonomies, the corresponding committees deal exclusively with <u>nomenclature</u>; classification is agreed upon based on the published literature
- In virus taxonomy, the ICTV is responsible for both classification and nomenclature



Executive Committee	23 virologists from 15 countries
Animal DNA Viruses and Retroviruses Subcommittee	18 Study Groups
Animal dsRNA and ssRNA-Viruses Subcommittee	22 Study Groups
Animal ssRNA+Viruses Subcommittee	15 Study Groups
Archaeal Viruses Subcommittee	II Study Groups
Bacterial Viruses Subcommittee	18 Study Groups
Fungal and Protist Viruses Subcommittee	12 Study Groups
Plant Viruses Subcommittee	22 Study Groups
Life Members	II virologists from 6 countries
National Representatives	42 virologists from national virology societies

55 th meeting (Jena, 2023)	203 proposals approved (all species renamed)
52 nd -54 th meetings (online, 2020-2022)	696 proposals approved (binomial nomenclature)
51 st meeting (Berlin, 2019)	206 proposals approved (megataxonomy)



The ICTV decision-making process





VIROLOGY DIVISION NEWS

Changes to virus taxonomy and the ICTV Statutes ratified by the International Committee on Taxonomy of Viruses (2023)

Francisco Murilo Zerbini¹[®] · Stuart G. Siddell²[®] · Elliot J. Lefkowitz³[®] · Arcady R. Mushegian⁴[®] · Evelien M. Adriaenssens⁵[®] · Poliane Alfenas-Zerbini⁶[®] · Donald M. Dempsey³[®] · Bas E. Dutilh^{7,8}[®] · María Laura García⁹[®] · R. Curtis Hendrickson³[®] · Sandra Junglen¹⁰[®] · Mart Krupovic¹¹[®] · Jens H. Kuhn¹²[®] · Amy J. Lambert¹³[®] · Małgorzata Łobocka¹⁴[®] · Hanna M. Oksanen¹⁵[®] · David L. Robertson¹⁶[®] · Luisa Rubino¹⁷[®] · Sead Sabanadzovic¹⁸[®] · Peter Simmonds¹⁹[®] · Donald B. Smith¹⁹[®] · Nobuhiro Suzuki²⁰[®] · Koenraad Van Doorslaer²¹[®] · Anne-Mieke Vandamme^{22,23}[®] · Arvind Varsani²⁴[®]

VIROLOGY DIVISION NEWS

Abolishment of morphology-based taxa and change to binomial species names: 2022 taxonomy update of the ICTV bacterial viruses subcommittee

Dann Turner¹ Andrey N. Shkoporov² Cédric Lood³ Andrew D. Millard⁴ · Bas E. Dutilh^{5,6} · Poliane Alfenas-Zerbini⁷ · Leonardo J. van Zyl⁸ · Ramy K. Aziz^{9,10} · Hanna M. Oksanen¹¹ · Minna M. Poranen¹¹ · Andrew M. Kropinski¹² · Jakub Barylski¹³ · J Rodney Brister¹⁴ · Nina Chanisvili¹⁵ · Rob A. Edwards¹⁶ · François Enault¹⁷ · Annika Gillis¹⁸ · Petar Knezevic¹⁹ · Mart Krupovic²⁰ · Ipek Kurtböke²¹ · Alla Kushkina^{22,23} · Rob Lavigne³ · Susan Lehman²⁴ · Malgorzata Lobocka²⁵ · Cristina Moraru²⁶ · Andrea Moreno Switt²⁷ · Vera Morozova²⁸ · Jesca Nakavuma²⁹ · Alejandro Reyes Muñoz³⁰ · Jānis Rūmnieks³¹ · BL Sarkar³² · Matthew B. Sullivan³³ · Jumpei Uchiyama³⁴ · Johannes Wittmann³⁵ · Tong Yigang³⁶ · Evelien M. Adriaenssens³⁷

VIROLOGY DIVISION NEWS

Naryaviridae, Nenyaviridae, and *Vilyaviridae*: three new families of single-stranded DNA viruses in the phylum *Cressdnaviricota*

Mart Krupovic¹ · Arvind Varsani^{2,3}

CONSENSUS STATEMENT



Check for updates

OPEN

The new scope of virus taxonomy: partitioning the virosphere into 15 hierarchical ranks

International Committee on Taxonomy of Viruses Executive Committee*

JOURNAL OF GENERAL VIROLOGY REVIEW Siddell et al., Journal of General Virology 2023;104:001840 DOI 10.1099/jgv.0.001840



Virus taxonomy and the role of the International Committee on Taxonomy of Viruses (ICTV)

Stuart G. Siddell^{1,*},[†], Donald B. Smith²[†], Evelien Adriaenssens³, Poliane Alfenas-Zerbini⁴, Bas E. Dutilh^{5,6}, Maria Laura Garcia⁷, Sandra Junglen⁸, Mart Krupovic⁹, Jens H. Kuhn¹⁰, Amy J. Lambert¹¹, Elliot J. Lefkowitz¹², Małgorzata Łobocka¹³, Arcady R. Mushegian¹⁴, Hanna M. Oksanen¹⁵, David L. Robertson¹⁶, Luisa Rubino¹⁷, Sead Sabanadzovic¹⁸, Peter Simmonds², Nobuhiro Suzuki¹⁹, Koenraad Van Doorslaer²⁰, Anne-Mieke Vandamme²¹, Arvind Varsani²² and F. Murilo Zerbini²³

PLOS BIOLOGY

CONSENSUS VIEW

Four principles to establish a universal virus taxonomy

Peter Simmonds^{1*}, Evelien M. Adriaenssens^{2*}, F. Murilo Zerbini^{3*}, Nicola G. A. Abrescia^{4,5}, Pakorn Aiewsakun⁶, Poliane Alfenas-Zerbini⁷, Yiming Bao^{8,9}, Jakub Barylski¹⁰, Christian Drosten^{11,12}, Siobain Duffy¹³, W. Paul Duprex¹⁴, Bas E. Dutilh^{15,16}, Santiago F. Elena^{17,18}, Maria Laura García¹⁹, Sandra Junglen^{11,12}, Aris Katzourakis²⁰, Eugene V. Koonin²¹, Mart Krupovic²², Jens H. Kuhn²³, Amy J. Lambert²⁴, Elliot J. Lefkowitz²⁵, Małgorzata Łobocka²⁶, Cédric Lood²⁷, Jennifer Mahony²⁸, Jan P. Meier-Kolthoff²⁹, Arcady R. Mushegian³⁰, Hanna M. Oksanen³¹, Minna M. Poranen³¹, Alejandro Reyes-Muñoz³², David L. Robertson³³, Simon Roux³⁴, Luisa Rubino³⁵, Sead Sabanadzovic³⁶, Stuart Siddell³⁷, Tim Skern³⁸, Donald B. Smith¹, Matthew B. Sullivan³⁹, Nobuhiro Suzuki⁴⁰, Dann Turner⁴¹, Koenraad Van Doorslaer⁴², Anne-Mieke Vandamme^{43,44}, Arvind Varsani⁴⁵, Nikos Vasilakis⁴⁶









1.1

The International Committee on Taxonomy of Viruses (ICTV) is a committee of the Virology Division of the International Union of Microbiological Societies. ICTV activities are governed by Statutes agreed with the Virology Division.

Log in

1.2

The Statutes define the objectives of the ICTV. These are:



Support



Thank you





PRODUCING THE TAXONOMY

Who?

How?



WHO CREATES VIRUS TAXA?

- Anyone
- Virus discoverers
- ICTV Study groups
- ICTV Subcommittee Chairs





CREATING THE TAXONOMY: HOW



PROPOSAL PROCESS

Prepare proposal

Submit to Subcommittee Chair

Review by Study Group

Review by Executive Committee

Ratification by ICTV Membership



PROPOSAL TEMPLATES

- Proposed taxonomic actions
 - Excel document
- Evidence supporting the proposed taxonomy
 - Word document



DEMARCATION CRITERIA POXVIRIDAE: SUBFAMILY:GENERA:SPECIES

- Phenotypic
 - Natural host range (Subfamily)
 - Growth characteristics and host range in cell culture
 - Morphology of pocks; Plaque characteristics
 - Disease characteristics.
 - Morbidity, mortality, etc.
 - Serological criteria
 - Plaque neutralization tests, cross-protection in animals
- Genotypic
 - Gene content
 - Genome organization
 - Amino acid sequence identity of commonly shared genes.
 - hemagglutinin or A-type inclusion protein
 - Nucleotide sequence identity, conserved, core region of orthopoxvirus genomes
 - Different species <96% 98%
 - Isolate >98%
 - Phylogenetic analysis





MASTER SPECIES LIST

The definitive source of the virus taxonomy

°°

	В	С	D	E	F	G	Н	I	J	К	L	Μ	Ν	0	Р	Q	R	S	Т
1	Realm	Subrealm	Kingdom	Subkingdom	Phylum	Subphylum	Class	Subclass	Order	Suborder	Family	Subfamily	Genus	Subgenus	Species	Genome Composition	Last Change	MSL of Last Change	Proposal for Last Change
2	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Alphalipothrixvirus		Alphalipothrixvirus SBFV2	dsDNA	Moved,	3	6 2020.186B.R.Adnaviria.zip
3	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Alphalipothrixvirus		Alphalipothrixvirus SFV1	dsDNA	Moved, Removed a	3	6 2020.001G.R.Abolish_type_species.pdf
4	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 3	dsDNA	Moved,	3	6 2020.186B.R.Adnaviria.zip
5	Adnaviria	2	Zilligvirae Zilligvirae		Taleaviricota		Tokiviricotos		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 6		Moved,	3	6 2020.186B.R.Adnavira.zip
7	Adnaviria	7	-illigvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrivvirus		Acidianus filamentous virus 8	dsDNA	Moved,	3	6 2020 186B R Adnaviria zin
8	Adnaviria	7	Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 9	dsDNA	Moved.	3	6 2020.186B. B. Adnavirja. zip
9	Adnaviria	Z	Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Sulfolobus islandicus filamentous viru	s dsDNA	Moved,Removed a	3	6 2020.001G.R.Abolish type species.pdf
10	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Deltalipothrixvirus		Acidianus filamentous virus 2	dsDNA	Moved,Removed a	3	6 2020.001G.R.Abolish type species.pdf
11	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Deltalipothrixvirus		Deltalipothrixvirus SBFV3	dsDNA	Moved,	3	6 2020.186B.R.Adnaviria.zip
12	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Azorudivirus		Azorudivirus SRV	dsDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
13	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus ARV2	dsDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
14	Adnaviria	2	Cilligvirae		l aleavincota		Tokivincetes		Ligamenvirales		Rudivindae		Hoswirudivirus		Hoswirudivirus ARV3	dsDNA	New,	3	6 2020.141B.R.Rudivindae.zip
15	Adnaviria	2	Lilligvirae Zilligvirae		Taleaviricota		Tokiviriaataa		Ligamenvirales		Rudivindae Rudiviridaa		Hoswinudivirus		Hoswinudivinus MRV1	dsDNA dsDNA	New,	3	6 2020.141B.R.Rudivindae.zip
17	Adnaviria	7	Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Iconudivinus		Icendivinus SIRV1		Renamed Moved	3	6 2020.141B.R. Rudiviridae.zip
18	Adnaviria	7	-illiqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Icerudivirus		Icendivinus SIRV2	dsDNA	Renamed Moved R	3	6 2020 141B R Rudivindae zip:2020 001G R Abolish type species odf
19	Adnaviria	Z	Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Icerudivirus		Icerudivirus SIRV3	dsDNA	New.	3	6 2020.141B.R.Rudiviridae.zip
20	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Itarudivirus		Itarudivirus ARV1	dsDNA	Renamed, Moved,	3	6 2020.141B.R.Rudiviridae.zip
21	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Japarudivirus		Japarudivirus SBRV1	dsDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
22	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Mexirudivirus		Mexirudivirus SMRV1	dsDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
23	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV4	dsDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
24	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV5	dsDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
25	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV8	dsDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
26	Adnaviria	2	Lilligvirae		Taleavincota		Tokivincetes		Ligamenvirales		Rudivindae		Usarudivirus		Usarudivirus SIRV9	dsDNA	New,	3	6 2020.141B.R.Rudivindae.zip
21	Adnaviria	2	Zilligvirae Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae Rudiviridae		Usarudivirus		Usarudivirus SIRV10	dsDNA dcDNA	New,	3	6 2020.141B.R.Rudiviridae.zip
20	Adnaviria	7	Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		I Ingulaviridae		Cantovinus		Cantovirus AEV1		Renamed Moved	3	7 2021 003A R LIngulaviridae zin
30	Adnaviria	7	illiqvirae		Taleaviricota		Tokiviricetes		Maximonvirales		Ahmunviridae		Yumkaaxvirus		Yumkaaxvirus pescaderoense	dsDNA	New.	3	8 2022.001A Nakonvirales Maximonvirales Covopavirales 3no.zip
31	Adnaviria	Z	Zilliqvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Alphatristromavirus		Alphatristromavirus PFV1	dsDNA	Renamed, Moved, R	3	6 2020.168B.R.Tristromaviridae.zip:2020.001G.R.Abolish type species.pdf
32	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Alphatristromavirus		Alphatristromavirus PFV2	dsDNA	New,	3	6 2020.168B.R.Tristromaviridae.zip
33	Adnaviria	Z	Zilligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Betatristromavirus		Betatristromavirus TTV1	dsDNA	Renamed, Moved,	3	6 2020.168B.R.Tristromaviridae.zip
34	Duplodnaviria	E	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Batravirus		Batravirus ranidallo1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
35	Duplodnaviria	E. F.	leunggongvirae	1	Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Batravirus		Batravirus ranidallo2	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
36	Duplodnaviria	H	leunggongvirae	1	Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Batravirus		Batravirus ranidallo3	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
37	Duplodnaviria	- H	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Cyvirus		Cyvirus anguillidallo1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
38	Duplodnavina	E E	leunggongvirae		Peplovincota		Herviviricetes		Herpesvirales		Alloherpesviridae		Cyvirus		Cyvirus cyprinidallo1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1rentam_4rengen_124rensp_6absp.zip
39	Duplodnaviria		Heunggongvirae		Pepiovincota		Herviviriaataa		Herpesvirales		Alloherpesviridae		Cyvirus		Cyvirus cyprinidallo2	dsDNA dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_frentam_4rengen_124rensp_6absp.zip
40	Duplodnavina		leunggongvirae		Peplovincola		Henviviricetes		Herpesvirales		Allohemesviridae		lotavinus		Ictavinus acinenseridallo?		Renamed	3	8 2022.001D Herpesvirales_frentam_4rengen_124rensp_6absp.zip
42	Duplodnaviria	E E	leunggongvirae		Penloviricota		Herviviricetes		Herpesvirales		Allohemesviridae		Ictavirus		Ictavirus ictaluridallo1	dsDNA	Renamed	3	8 2022 001D Hernesvirales 1renfam 4rengen 124rensp 6absp.zip
43	Duplodnaviria	E	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Ictavirus		Ictavirus ictaluridallo2	dsDNA	Renamed.	3	8 2022.001D.Herpesvirales 1renfam 4rengen 124rensp 6absp.zip
44	Duplodnaviria	H	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Salmovirus		Salmovirus salmonidallo1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales 1renfam 4rengen 124rensp 6absp.zip
45	Duplodnaviria	E	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Salmovirus		Salmovirus salmonidallo2	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
46	Duplodnaviria	E	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Salmovirus		Salmovirus salmonidallo3	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
47	Duplodnaviria	E E	leunggongvirae	1	Peploviricota		Herviviricetes		Herpesvirales		Malacoherpesviridae		Aurivirus		Aurivirus haliotidmalaco1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
48	Duplodnaviria	E H	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Malacoherpesviridae		Ostreavirus		Ostreavirus ostreidmalaco1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
49	Duplodnaviria	E E	leunggongvirae		Peplovincota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	litovirus		litovirus cacatuidalpha2	dsDNA	New,	3	8 2022.002D.Herpesvirales_9nsp.zip
50	Duplodnaviria		Heunggongvirae		Pepiovincota		Herviviriaataa		Herpesvirales		Orthoherpesviridae	Alphanerpesvirinae	litovirus		litovirus galildalpha'i	dsDNA dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_frentam_4rengen_124rensp_6absp.zip
52	Duplodnavina		leunggongvirae		Peplovincola		Herviviricetes		Herpesvirales		Orthohemesviridae	Alphanerpesvirinae	litovirus		Iltovirus psittacidalpha1		New	3	8 2022.001D.Herpesvirales_freman_4rengen_124rensp_babsp.zip
53	Duplodnaviria	E E	leunggongvirae		Penloviricota		Herviviricetes		Hernesvirales		Orthohemesviridae	Alphahemesvirinae	Mardivirus		Mardivirus anatidalphao	dsDNA	Renamed	3	8 2022 001D Hernesvirales 1renfam 4rengen 124rensp 6absp zin
54	Duplodnaviria	E E	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Mardivirus		Mardivirus columbidalpha1	dsDNA	Renamed.	3	8 2022.001D.Herpesvirales 1renfam 4rengen 124rensp 6absp.zip
55	Duplodnaviria	E	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Mardivirus		Mardivirus gallidalpha2	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales 1renfam 4rengen 124rensp 6absp.zip
56	Duplodnaviria	E	leunggongvirae	1	Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Mardivirus		Mardivirus gallidalpha3	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
57	Duplodnaviria	H	leunggongvirae	1	Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Mardivirus		Mardivirus meleagridalpha1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
58	Duplodnaviria	H	leunggongvirae	1	Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Mardivirus		Mardivirus spheniscidalpha1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
59	Duplodnaviria	H	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Scutavirus		Scutavirus chelonidalpha5	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
60	Duplodnaviria	E F	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Scutavirus		Scutavirus testudinidalpha3	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
61	Duplodnavina	H H	leunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Orthoherpesviridae	Alphaherpesvirinae	Simplexvirus		Simplexvirus atelinealpha1	dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1renfam_4rengen_124rensp_6absp.zip
62	Duplodnaviria	E E	leunggongvirae		Peplovincota		Hervivincetes		Herpesvirales		Orthoherpesvindae	Alphaherpesvirinae	Simplexvirus		Simplexvirus bovinealpha2	dsDNA dsDNA	Renamed,	3	8 2022.001D.Herpesvirales_1rentam_4rengen_124rensp_6absp.zip
03	Duploanaviria		lounggongvirae		repiovincota Poploviriente		Henviviricetes		Herpesvirales		Orthohomosviridaa	Alphaherpesvirinae	Simplexvirus		Simplex Virus cercopit necinealpha2		Renamed,	3	8 2022 001D Herpesvirales Trentam 4rengen 124rensp 6absp.zlp
65	Duplodnaviria		leunaaonavirae		Penloviricota		Henviviricetes		Hernesvirales		Orthohemesviridae	Alphaherpesviringo	Simplexvirus		Simplexvirus numarialpha i Simplexvirus humanalpha?	dsDNA	Renamed	3	8 2022.001D Hernesvirales Trenfam Arengen 124rensp Gabsp.ZID
66	Duplodnavina		Heunaaonavirae		Penloviricota		Herviviricetes		Hernesvirales		Orthohemesviridae	Alphahemesviringe	Simplexvirus		Simplexvirus Inumanalphaz Simplexvirus leporidalpha4	dsDNA	Renamed	3	8 2022 001D Hernesvirales Trenfam Arengen 124rensp Gabsp.zip
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MSL Column Definitions Taxa Renamed in MSL38 Version

Taxon Counts +

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NOMENCLATURE ETYMOLOGY

What's in a name?



News



LIVE Webinar on Virus Taxonomy

ICTV Webinar: March 21, 2024 10:00 AM - 12:00 noon CDT. Register here.

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New ICTV Report Chapter New Report chapter for the (-) sense RNA virus family, *Kolmioviridae*.

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Etymology of Taxon Names

Were you ever curious about the orgins of taxon names? Find out on our Etymology page

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	Home > Current ICTV Taxono	omy Release > Etymology		

Etymology of Taxon Names

Etymology

The information below provides a list containing descriptions of the origins of ICTV taxon names starting at the rank of realm and going down to the rank of family. This information is derived from the proposals that were submitted when each taxon was created. Links to these proposals, links to ICTV report chapters, and links to publications (through PMIDs) are provided when available.

We thank Stuart Siddell for compiling this list of name origins. Etymological information for taxa below the rank of family, can be found in the relevant ICTV Online (10th) Report chapters. If you have any comments or corrections, please contact us by sending an email to info@ictv.global.



Realm: Adnaviria

Taxon: *Adnaviria*; Rank: realm; Proposal: 2020.186B.R.Adnaviria; ; ICTV Report: ; Reference: from <u>A</u>-form <u>DNA</u> characteristic of viruses in this realm; the suffix -<u>viria</u> for realm taxa

Taxon: *Zilligvirae*; Rank: kingdom; Proposal: 2020.186B.R.Adnaviria; ; ICTV Report: ; Reference: to honour Wolfram <u>Zillig</u>, a pioneer of research on hyperthermophilic archaeal viruses; the suffix -<u>virae</u> for kingdom taxa

Taxon: Taleaviricota; Rank: phylum; Proposal: 2020.186B.R.Adnaviria; ; ICTV Report: ; Reference:

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 Duplodnaviria 			
Monodnaviria			I
Riboviria			
 Ribozyviria 			
O Varidnaviria	EMS PER PAGE		
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Realm: Riboviria

Taxon: *Riboviria*; Rank: realm; Proposal: 2017.006G.A.v1.Riboviria; ; ICTV Report: ; Reference: from <u>ribo</u>, for ribonucleic acid, referring to the genome of viruses in the realm; the suffix -<u>viria</u> for realm taxa

Taxon: Orthornavirae; Rank: kingdom; Proposal: 2019.006G.A.v1.Riboviria; ; ICTV Report: ; Reference: from the Greek ὀρθός (<u>orthó</u>s) meaning "straight" or "true" and <u>RNA</u> for ribonucleic acid; the suffix -<u>virae</u> for kingdom taxa

Taxon: Duplornaviricota; Rank: phylum; Proposal: 2019.006G.A.v1.Riboviria; ; ICTV Report: ; Reference: from the Italian <u>duplo</u> meaning "double", a reference to viruses in this phylum having double-stranded genomes, and <u>RNA</u> for ribonucleic acid; the suffix -<u>viricota</u> for phylum taxa

Taxon: *Chrymotiviricetes*; Rank: class; Proposal: 2019.006G.A.v1.Riboviria; ; ICTV Report: ; Reference: a portmanteau of *Chrysoviridae*, *Megabirnaviridae*, and *Totiviridae*, three virus families included in the taxon; the suffix -*viricetes* for class taxa

Taxon: *Ghabrivirales*; Rank: order; Proposal: 2019.006G.A.v1.Riboviria; ; ICTV Report: ; Reference: in honour of Said <u>Ghabri</u>al, a pioneer in the study of the viruses in this order; the suffix -<u>virales</u> for order taxa

Taxon: Alternaviridae; Rank: family; Proposal: 2022.001F.Alternaviridae_newfam; ; ICTV Report: ; Reference: from <u>Alte</u>rnaria alternata, the name of the original fungal host, and <u>RNA</u> for ribonucleic acid, referring to the type of nucleic acid comprising the genome of viruses in the family; the suffix -<u>viridae</u> for family taxa

Taxon: Chrysoviridae; Rank: family; Proposal: Ratification 2002a; ; ICTV Report: Chrysoviridae; Reference: PMID: 5191625 from the Greek <u>chrysó</u>s meaning "gold", derived from the specific epithet of *Penicillium chrysogenum*, the fungal host of Penicillium chrysogenum virus, a member of the virus family; the suffix -<u>viridae</u> for family taxa



VIRUS METADATA RESOURCE

VMR



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International Committee on Taxonomy of Viruses: ICTV

Official Taxonomic Resources



ICTV Taxonomy Browser

Search and browse the virus taxonomy



Master Species List

MSL: Spreadsheet of all current species



Virus Metadata Resource

VMR: Virus exemplars for every species

News



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s	iort Isola Sor	te Realm	Sub realm Kingdom	Sub kingdom	Phylum	Sub phylum	Class	Sub class Order	Sub order	Family	Sub family	Genus	Su ger	ub Species	Exempla additio isolat	nal nal	Virus name(s)	Virus name abbreviation(Virus isolate s) designation	Virus GENBANK accession	Virus REFSEQ accession	Genome covera	ge Geno	ome Host osition source
2 3	1 2	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	T. T.	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	L	Lipothrixviridae Lipothrixviridae		Alphalipothrixviru Alphalipothrixviru	s s	Alphalipothrixvirus SBFV2 Alphalipothrixvirus SFV1	E	SL SL	ulfolobales Beppu filamentous virus 2 Sulfolobus filamentous virus 1	SBFV2 SFV1	SBFV2 clone B SFV1 isolate S48	MK064563 MH447526	NC_048128 NC_048037	Coding-complete genom Complete genome	e dsDNA dsDNA	archaea archaea
4 5	3 4	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	T. T.	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	L	ipothrixviridae ipothrixviridae		Betalipothrixvirus Betalipothrixvirus		Acidianus filamentous virus 3 Acidianus filamentous virus 6	E	A	Acidianus filamentous virus 3 Acidianus filamentous virus 6	AFV3 AFV6		AM087120 AM087121	NC_010155 NC_010152	Complete genome Complete genome	dsDNA dsDNA	archaea archaea
6 7	5	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	T.	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	L	lipothrixviridae lipothrixviridae		Betalipothrixvirus Betalipothrixvirus		Acidianus filamentous virus 7 Acidianus filamentous virus 8	E	A	Acidianus filamentous virus 7 Acidianus filamentous virus 8	AFV7 AFV8		AM087122 AM087123	NC_010153 NC_010154	Complete genome Complete genome	dsDNA dsDNA	archaea archaea
8 9	7	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	T.	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	L	lipothrixviridae lipothrixviridae		Betalipothrixvirus Betalipothrixvirus		Acidianus filamentous virus 9 Sulfolobus islandicus filamento	E Is viru E	A	Acidianus filamentous virus 9 Sulfolobus islandicus filamentous virus	AFV9 SIFV		EU545650 AF440571	NC_010537 NC_003214	Complete genome Complete genome	dsDNA dsDNA	archaea archaea
10 11	9 10	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	7	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	L	lipothrixviridae lipothrixviridae		Deltalipothrixvirus Deltalipothrixvirus		Acidianus filamentous virus 2 Deltalipothrixvirus SBFV3	E	A	Acidianus filamentous virus 2 Sulfolobales Beppu filamentous virus 3	AFV2 SBFV3	SBFV3 clone C	AJ854042 MK064564	NC_009884 NC_048127	Complete genome Coding-complete genom	e dsDNA	archaea archaea
12 13	11 12	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	7	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	F F	Rudiviridae Rudiviridae		Azorudivirus Hoswirudivirus		Azorudivirus SRV Hoswirudivirus ARV2	E	St	Stygiolobus rod-shaped virus Acidianus rod-shaped virus 2	SRV ARV2		FM164764 KP282675	NC_025375 NC_029314	Coding-complete genom Coding-complete genom	≥ dsDNA e dsDNA	archaea archaea
14	13 14	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	7	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	F	Rudiviridae Rudiviridae		Hoswirudivirus Hoswirudivirus		Hoswirudivirus ARV3 Hoswirudivirus MRV1	E	A	Acidianus rod-shaped virus 3 Metallosphaera rod-shaped virus 1	ARV3 MRV1		MN876842 MN876843	NC_074632 NC_074633	Coding-complete genom	e dsDNA	archaea
16	15	1 Adnaviria	Zilligvirae		Taleaviricota	7.	okiviricetes	Ligamenvirales	ĥ	Rudiviridae		Hoswirudivirus		Hoswirudivirus SSRV1	E	Sa	accharolobus solfataricus rod-shaped virus 1	SSRV1		MN876841	NC_074634	Coding-complete genome	e dsDNA	archaea
18	17	1 Adnaviria	Zilligvirae		Taleaviricota	7.	okiviricetes	Ligamenvirales		Rudiviridae		Icerudivirus	_	Icerudivirus SIRV2	E	SL	Sulfolobus islandicus rod-shaped virus 1	SIRV1	-	AJ344259	NC_004087	Complete genome	dsDNA	archaea
19 20	18 19	1 Adnavina 1 Adnaviria	Zilligvirae		Taleaviricota	7	okiviricetes okiviricetes	Ligamenvirales	F.	Rudivindae Rudiviridae		Icerudivirus Itarudivirus		Itarudivirus ARV1	E	A	Acidianus rod-shaped virus 3	ARV1		AJ875026	NC_030884 NC_009965	Coding-complete genom	e dsDNA	archaea
21 22	20 21	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	7.	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	F F	Rudiviridae Rudiviridae		Japarudivirus Mexirudivirus		Japarudivirus SBRV1 Mexirudivirus SMRV1	E	SL	ulfolobales Beppu rod-shaped virus 1 Sulfolobales Mexican rod-shaped virus 1	SBRV1 SMRV1		MK064565 JX944686	NC_074635 NC_019413	Coding-complete genom Coding-complete genom	e dsDNA e dsDNA	archaea
23 24	22 23	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	7	okiviricetes okiviricetes	Ligamenvirales Ligamenvirales	F.	Rudiviridae Rudiviridae		Usarudivirus Usarudivirus	_	Usarudivirus SIRV10 Usarudivirus SIRV11	E	SL SL	ulfolobus islandicus rod-shaped virus 10 ulfolobus islandicus rod-shaped virus 11	SIRV10 SIRV11		KY744230 KY744234	NC_034625 NC_034624	Coding-complete genom Coding-complete genom	e dsDNA e dsDNA	archaea archaea
25 26	24 25	1 Adnaviria 1 Adnaviria	Zilligvirae Zilliavirae		Taleaviricota Taleaviricota	7	okiviricetes okiviricetes	Ligamenvirales Liaamenvirales	F F	Rudiviridae Rudiviridae		Usarudivirus Usarudivirus		Usarudivirus SIRV4 Usarudivirus SIRV5	E	SL SL	ulfolobus islandicus rod-shaped virus 4 ulfolobus islandicus rod-shaped virus 5	SIRV4 SIRV5		KY744231 KY744233	NC_034628 NC 034621	Coding-complete genom Coding-complete genom	e dsDNA	archaea
27	26	1 Adnaviria	Zilligvirae		Taleaviricota	7	okiviricetes	Ligamenvirales	F.	Rudiviridae Rudiviridae		Usarudivirus Usarudivirus		Usarudivirus SIRV8	E	SL	ulfolobus islandicus rod-shaped virus 8	SIRV8		KY744229	NC_034623	Coding-complete genom	e dsDNA	archaea
29	28	1 Adnaviria	Zilligvirae		Taleaviricota	7	okiviricetes	Ligamenvirales		Ungulaviridae		Captovirus		Captovirus AFV1	E	A	Acidianus filamentous virus 1	AFV1	_	AJ567472	NC_005830	Complete genome	dsDNA	archaea
31	30	1 Adnavina 1 Adnaviria	Zilligvirae		Taleaviricota	T	okiviricetes okiviricetes	Primavirales	7	nn un vinaae Tristromaviridae		Alphatristromavir	IS	Alphatristromavirus PFV1	E	P	Pyrobaculum filamentous virus 1	PEV300 PFV1		KU307456	NC_074636 NC_029548	Complete genome	dsDNA	archaea
32 33	31 32	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae		Taleaviricota Taleaviricota	7	okiviricetes okiviricetes	Primavirales Primavirales	7	Tristromaviridae Tristromaviridae		Alphatristromavin Betatristromavirus	15	Alphatristromavirus PFV2 Betatristromavirus TTV1	E	P	Pyrobaculum filamentous virus 2 Thermoproteus tenax virus 1	PFV2 TTV1	KRA1	MN876844 X14855	NC_074637 NC_038931	Complete genome Partial genome	dsDNA dsDNA	archaea archaea
34 35	33 34	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	e e	Peploviricota Peploviricota	H	lerviviricetes lerviviricetes	Herpesvirales Herpesvirales	4	Alloherpesviridae Alloherpesviridae		Batravirus Batravirus	_	Batravirus ranidallo1 Batravirus ranidallo2	E	Lu	ucké tumor herpesvirus; ranid herpesvirus 1 rog virus 4: ranid herpesvirus 2	LTHV; RaHV1 FV4: RaHV2	McKinnell Rafferty	DQ665917 DQ665652	NC_008211 NC 008210	Complete genome Complete genome	dsDNA dsDNA	vertebrates vertebrates
36	35	1 Duplodnaviria	Heunggongvira	e	Peploviricota Peploviricota	H	lerviviricetes	Herpesvirales Herpesvirales	4	Alloherpesviridae		Batravirus Cuvirus	_	Batravirus ranidallo3	E	ra	anid herpesvirus 3 ananese eel hernesvirus: anguillid hernesvirus 1	RaHV3	F01_2015	KX832224	NC_034618	Complete genome	dsDNA dsDNA	vertebrates
38	37	1 Duplodnaviria	Heunggongvira	e	Peploviricota	H	lerviviricetes	Herpesvirales	4	Alloherpesviridae		Cyvirus		Cyvirus cyprinidallo1	E	ca	approver the period of the per	CyHV1	NG-J1	JQ815363	NC_019491	Complete genome	dsDNA	vertebrates
40	39	1 Duplodnaviria	Heunggongvira	e	Peploviricota	H	lerviviricetes	Herpesvirales	4	Alloherpesviridae		Cyvirus		Cyvirus cyprinidallo3	E	ko	soi herpesvirus; cyprinid herpesvirus 3	KHV; CyHV3	KHV-U	DQ657948	NC_019495 NC_009127	Complete genome	dsDNA	vertebrates
41 42	40 41	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	e e	Peploviricota Peploviricota	H	lerviviricetes lerviviricetes	Herpesvirales Herpesvirales	4	Alloherpesviridae Alloherpesviridae		Ictavirus Ictavirus		Ictavirus acipenseridallo2 Ictavirus ictaluridallo1	E	w cł	white sturgeon herpesvirus 2; acipenserid herpesvirus 2 channel catfish virus; ictalurid herpesvirus 1	CCV; IcHV1	SRWSHV Auburn 1	FJ815289 M75136	NC_043042 NC_001493	Partial genome Complete genome	dsDNA dsDNA	vertebrates vertebrates
43 44	42 43	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	e e	Peploviricota Peploviricota	H	lerviviricetes lerviviricetes	Herpesvirales Herpesvirales	4	Alloherpesviridae Alloherpesviridae		Ictavirus Salmovirus	_	Ictavirus ictaluridallo2 Salmovirus salmonidallo1	E	bl	black bullhead herpesvirus; ictalurid herpesvirus 2 herpesvirus salmonis; salmonid herpesvirus 1	IcHV2 SalHV1	760/94 Winthrop	MG271984 AF023673	NC_036579 NC_043043	Complete genome Partial genome	dsDNA dsDNA	verteb rates verteb rates
45	44 45	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	e e	Peploviricota Peploviricota	H	lerviviricetes Ierviviricetes	Herpesvirales Herpesvirales	4	Alloherpesviridae Alloherpesviridae		Salmovirus Salmovirus		Salmovirus salmonidallo2 Salmovirus salmonidallo3	E	0	Dicorhyncus masou herpesvirus; salmonid herpesvirus mizootic epitheliotomic disease virus: salmonid herpes	2 Sal HV2 virus 3 Sal HV3	NeVTA Wisconsin enider	EU349274	NC 043468	Partial genome	dsDNA dsDNA	vertebrates
47	46	1 Duplodnaviria	Heunggongvira	e	Peploviricota	H	lerviviricetes	Herpesvirales	^	Malacoherpesvirida	2	Aurivirus	_	Aurivirus haliotidmalaco1	E	at	balone herpesvirus; haliotid herpesvirus 1	AbHV1; HaHV1	Victoria/AUS/200	JX453331	NC_018874	Complete genome	dsDNA	vertebrates
48	47	1 Duplodnaviria	Heunggongvira	e	Peploviricota	H	lerviviricetes	Herpesvirales	C	Orthoherpesviridae	e Alphaherpesvirinae	Iltovirus	_	Iltovirus cacatuidalpha2	E	ca	acatuid alphaherpesvirus 2	CcAHV2	CaHV2/Melbourn	MK360902	NC_005881	Complete genome	dsDNA	vertebrates
50 51	49 50	1 Duplodnaviria 1 Duplodnaviria	Heunggongvira Heunggongvira	e e	Peploviricota Peploviricota	H	serviviricetes serviviricetes	Herpesvirales Herpesvirales	0	Orthoherpesviridae Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	Iltovirus Iltovirus		litovirus gallidalpha1 litovirus psittacidalpha1	E	ga p:	anna apnaherpesvirus 1; infectious laryngotracheitis vir ssittacid alphaherpesvirus 1; Pacheco's disease virus	JS GaAHV1; ILTV PsAHV1; PDV	SA2 97-0001	JN596962 AY372243	NC_075683 NC_005264	Complete genome Complete genome	dsDNA dsDNA	verteb rates verteb rates
52 53	51 52	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	e e	Peploviricota Peploviricota	H	lerviviricetes lerviviricetes	Herpesvirales Herpesvirales	0	Orthoherpesviridae Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	lltovirus Mardivirus		Iltovirus psittacidalpha5 Mardivirus anatidalpha1	E	p: ar	osittacid alphaherpesvirus 5 Inatid alphaherpesvirus 1; duck enteritis virus	PsAHV5 AnAHV1; DEV	16-4047 2085	MK955929 JF999965	NC_077028 NC_075687	Complete genome Complete genome	dsDNA dsDNA	vertebrates vertebrates
54	53 54	1 Duplodnaviria	Heunggongvira	e	Peploviricota Peploviricota	H	lerviviricetes lerviviricetes	Herpesvirales Hernesvirales	0	Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	Mardivirus Mardivirus		Mardivirus columbidalpha1 Mardivirus gallidalpha2	E	CC	olumbid alphaherpesvirus 1; pigeon herpesvirus	CoAHV1; PHV GaAHV2: MDV	HU Md5	KX589235 AF243438	NC_034266 NC_002229	Complete genome	dsDNA dsDNA	vertebrates
56	55	1 Duplodnaviria	Heunggongvira	e	Peploviricota	H	lerviviricetes	Herpesvirales	0	Orthoherpesviridae	Alphaherpesvirinae	Mardivirus		Mardivirus gallidalpha3	E	ga	allid alphaherpesvirus 3; gallid herpesvirus 3	GaAHV3	SB-1	HQ840738	NC_075702	Complete genome	dsDNA	vertebrates
58	57	1 Duplodnavina 1 Duplodnavina	Heunggongvira	e	Peplovincota	H	lerviviricetes	Herpesvirales	6	Orthoherpesvindae	Alphaherpesvirinae	Mardivirus		Mardivirus spheniscidalpha1 Mardivirus spheniscidalpha1	E	sp	pheniscid alphaherpesvirus 1	SpAHV1	lib01004	LT608135	NC_033464	Complete genome	dsDNA	vertebrates
59 60	58 59	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	e e	Peploviricota Peploviricota	H	lerviviricetes lerviviricetes	Herpesvirales Herpesvirales	0	Orthoherpesviridae Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	Scutavirus Scutavirus		Scutavirus chelonidalpha5 Scutavirus testudinidalpha3	E	ch te	chelonid alphaherpesvirus 5; fibropapilloma-associated estudinid alphaherpesvirus 3; testudinid herpesvirus 3	turtle I ChAHV5; FPTHV TeAHV3; TeHV3	CH-651-6009 1976	HQ878327 KM924292	NC_075701 NC_027916	Partial genome Complete genome	dsDNA dsDNA	verteb rates verteb rates
61 62	60 61	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	e e	Peploviricota Peploviricota	H	lerviviricetes lerviviricetes	Herpesvirales Herpesvirales	0	Orthoherpesviridae Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	Simplexvirus Simplexvirus		Simplexvirus atelinealpha1 Simplexvirus bovinealpha2	E	at	iteline alphaherpesvirus 1; herpesvirus ateles 1 povine alphaherpesvirus 2; bovine mammillitis virus	AtAHV1; HVA1 BoAHV2; BMV	Lennette C1Z FZR	KY385637 MT862163	NC_034446 NC_076512	Complete genome Complete genome	dsDNA dsDNA	vertebrates vertebrates
63	62	1 Duplodnaviria	Heunggongvira	e	Peploviricota	H	lerviviricetes	Herpesvirales	0	Orthoherpesviridae	Alphaherpesvirinae	Simplexvirus	_	Simplexvirus cercopithecinealphe	2 E	CE	ercopithecine alphaherpesvirus 2; simian agent 8	CeAHV2; SA8	B264	AY714813	NC_006560	Complete genome	dsDNA deDNA	vertebrates
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3	2	1 Aanaviria 1 Adnaviria	Zilligvirae Zilligvirae	Taleavii Taleavii	ricota	Tokiviricetes	L	Ligamenvirales Ligamenvirales	Lipothrixviridae Lipothrixviridae		Alphalipothrixvirus Alphalipothrixvirus		Alphalipothrixvirus SBFV2 Alphalipothrixvirus SFV1	E	Sulfolobus filamentous virus 1	SEFV2 SEV1	SFV1 isolate S48	MH447526	NC_048128 NC_048037	Complete genome	dsDNA dsDNA	archaea	
5	3	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae	Taleavii Taleavii	ricota ricota	Tokiviricetes Tokiviricetes	L	Ligamenvirales Ligamenvirales	Lipothrixviridae Lipothrixviridae		Betalipothrixvirus Betalipothrixvirus		Acidianus filamentous virus 3 Acidianus filamentous virus 6	E .	Acidianus filamentous virus 3 Acidianus filamentous virus 6	AFV3 AFV6		AM087120 AM087121	NC_010155 NC_010152	Complete genome Complete genome	dsDNA dsDNA	archaea archaea	
6	5	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae	Taleavii Taleavii	ricota ricota	Tokiviricetes Tokiviricetes	L	Ligamenvirales Ligamenvirales	Lipothrixviridae Lipothrixviridae		Betalipothrixvirus Betalipothrixvirus		Acidianus filamentous virus 7 Acidianus filamentous virus 8	E	Acidianus filamentous virus 7 Acidianus filamentous virus 8	AFV7 AFV8		AM087122 AM087123	NC_010153 NC 010154	Complete genome Complete genome	dsDNA dsDNA	archaea archaea	
8	7	1 Adnaviria	Zilligvirae	Taleavi	ricota	Tokiviricetes	L	Ligamenvirales	Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 9 Sulfalabus islandisus filamentous v	E .	Acidianus filamentous virus 9 Sulfalabus islandisus filamentaus virus	AFV9		EU545650	NC_010537	Complete genome	dsDNA dsDNA	archaea	
10	9	1 Adnavina 1 Adnaviria	Zilligvirae	Taleavii	ricota	Tokiviricetes	L	Ligamenvirales Ligamenvirales	Lipothrixviridae		Deltalipothrixvirus		Sulfolobus Islandicus filamentous vi Acidianus filamentous virus 2	E .	Acidianus filamentous virus 2	AFV2		AF440571 AJ854042	NC_003214 NC_009884	Complete genome Complete genome	dsDNA	archaea	
11	10	1 Adnaviria 1 Adnaviria	Zilligvirae	Taleavii	ricota ricota	Tokiviricetes Tokiviricetes	L	Ligamenvirales Ligamenvirales	Lipothrixviridae Rudiviridae		Deltalipothrixvirus Azorudivirus		Deltalipothrixvirus SBFV3 Azorudivirus SRV	E	Sulfolobales Beppu filamentous virus 3 Stygiolobus rod-shaped virus	SBFV3 SRV	SBFV3 clone C	MK064564 FM164764	NC_048127 NC_025375	Coding-complete genome	dsDNA dsDNA	archaea	
13	12	1 Adnaviria	Zilligvirae	Taleavii	ricota	Tokiviricetes	L	Ligamenvirales	Rudiviridae		Hoswirudivirus		Hoswirudivirus ARV2	E .	Acidianus rod-shaped virus 2	ARV2		KP282675	NC_029314	Coding-complete genome	dsDNA	archaea	
14	13	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae	Taleavii	ricota ricota	Tokiviricetes		Ligamenvirales Ligamenvirales	Rudiviridae		Hoswirudivirus		Hoswirudivirus ARV3 Hoswirudivirus MRV1	E .	Acidianus rod-shaped virus 3 Metallosphaera rod-shaped virus 1	MRV1		MN876842 MN876843	NC_074632 NC_074633	Coding-complete genome Coding-complete genome	dsDNA dsDNA	archaea archaea	
16	15	1 Adnaviria 1 Adnaviria	Zilligvirae	Taleavii	ricota ricota	Tokiviricetes Tokiviricetes	L	Ligamenvirales	Rudiviridae		Hoswirudivirus		Hoswirudivirus SSRV1 Icerudivirus SIRV1	E E	Saccharolobus solfataricus rod-shaped virus 1 Sulfolobus islandicus rod-shaped virus 1	SSRV1 SIRV1		MN876841	NC_074634	Coding-complete genome	dsDNA dsDNA	archaea	
18	17	1 Adnaviria	Zilligvirae	Taleavii	ricota	Tokiviricetes	L	Ligamenvirales	Rudiviridae		Icerudivirus		Icerudivirus SIRV2	E	Sulfolobus islandicus rod-shaped virus 2	SIRV2		AJ344259	NC_004086	Complete genome	dsDNA	archaea	
20	18	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae	Taleavii Taleavii	ricota ricota	Tokiviricetes Tokiviricetes		Ligamenvirales Ligamenvirales	Rudiviridae Rudiviridae		Icerudivirus Itarudivirus		Icerudivirus SIRV3 Itarudivirus ARV1	E .	Sulfolobus islandicus rod-shaped virus 3 Acidianus rod-shaped virus 1	SIRV3 ARV1		KX712143 AJ875026	NC_030884 NC_009965	Coding-complete genome Coding-complete genome	dsDNA dsDNA	archaea archaea	
21	20	1 Adnaviria	Zilligvirae	Taleavi	ricota	Tokiviricetes	L	Ligamenvirales	Rudiviridae		Japarudivirus Mexinudivirus	-	Japarudivirus SBRV1 Mexinudivirus SMRV1	E	Sulfolobales Beppu rod-shaped virus 1 Sulfolobales Mexican rod-shaped virus 1	SBRV1 SMRV1		MK064565	NC_074635	Coding-complete genome	dsDNA dsDNA	archaea	
23	22	1 Adnaviria	Zilligvirae	Taleavii	ricota	Tokiviricetes	L	Ligamenvirales	Rudiviridae		Usarudivirus		Usarudivirus SIRV10	E	Sulfolobus islandicus rod-shaped virus 10	SIRV10		KY744230	NC_034625	Coding-complete genome	dsDNA	archaea	
24	23	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae	Taleavii Taleavii	ricota ricota	Tokiviricetes Tokiviricetes	L	Ligamenvirales Ligamenvirales	Rudiviridae Rudiviridae		Usarudivirus Usarudivirus		Usarudivirus SIRV11 Usarudivirus SIRV4	E	Sulfolobus islandicus rod-shaped virus 11 Sulfolobus islandicus rod-shaped virus 4	SIRV11 SIRV4		KY744234 KY744231	NC_034624 NC_034628	Coding-complete genome Coding-complete genome	dsDNA dsDNA	archaea archaea	
26	25	1 Adnaviria	Zilligvirae	Taleavi	ricota	Tokiviricetes	L	Ligamenvirales	Rudiviridae		Usarudivirus		Usarudivirus SIRV5	E	Sulfolobus islandicus rod-shaped virus 5 Sulfolobus islandicus rod-shaped virus 8	SIRV5		KY744233	NC_034621	Coding-complete genome	dsDNA dsDNA	archaea	
28	27	1 Adnaviria	Zilligvirae	Taleavi	ricota	Tokiviricetes	L	Ligamenvirales	Rudiviridae		Usarudivirus		Usarudivirus SIRV9	E	Sulfolobus islandicus rod-shaped virus 9	SIRV9		KY744228	NC_034620	Coding-complete genome	dsDNA	archaea	
29 30	28	1 Adnaviria 1 Adnaviria	Zilligvirae Zilligvirae	Taleavii Taleavii	ricota ricota	Tokiviricetes Tokiviricetes	1	Ligamenvirales Maximonvirales	Ungulaviridae Ahmunviridae		Captovirus Yumkaaxvirus	-	Captovirus AFV1 Yumkaaxvirus pescaderoense	Е	Acidianus filamentous virus 1 Methanophagales virus PBV300	AFV1 PBV300		AJ567472 OP413840	NC_005830 NC_074636	Complete genome Complete genome	dsDNA dsDNA	archaea archaea	
31	30	1 Adnaviria	Zilligvirae	Taleavi	ricota	Tokiviricetes	F.	Primavirales	Tristromaviridae		Alphatristromavirus		Alphatristromavirus PFV1	E	Pyrobaculum filamentous virus 1	PFV1		KU307456	NC_029548	Complete genome	dsDNA	archaea	
33	32	1 Adnaviria	Zilligvirae	Taleavii	ricota	Tokiviricetes	F	Primavirales	Tristromaviridae		Betatristromavirus		Betatristromavirus TTV1	E	Thermoproteus tenax virus 1	TTV1	KRA1	X14855	NC_074837 NC_038931	Partial genome	dsDNA	archaea	
34	33 34	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	Peplovi Peplovi	ricota ricota	Herviviricetes Herviviricetes	F F	Herpesvirales Herpesvirales	Alloherpesviridae Alloherpesviridae		Batravirus Batravirus		Batravirus ranidallo1 Batravirus ranidallo2	E	Lucké tumor herpesvirus; ranid herpesvirus 1 frog virus 4; ranid herpesvirus 2	LTHV; RaHV1 FV4; RaHV2	McKinnell Rafferty	DQ665917 DQ665652	NC_008211 NC_008210	Complete genome Complete genome	dsDNA dsDNA	vertebrates vertebrates	
36	35	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	ŀ	Herpesvirales	Alloherpesviridae		Batravirus		Batravirus ranidallo3	E	ranid herpesvirus 3	RaHV3	F01_2015	KX832224	NC_034618	Complete genome	dsDNA dsDNA	vertebrates	
38	30	1 Duplodnaviria	Heunggongvirae Heunggongvirae	Peplovi Peplovi	ricota	Herviviricetes	, , , , , , , , , , , , , , , , , , ,	Herpesvirales	Alloherpesviridae		Cyvirus		Cyvirus anguinidallo1 Cyvirus cyprinidallo1	E .	carp pox herpesvirus; anguillid herpesvirus 1	CyHV1	NG-J1	JQ815363	NC_013668 NC_019491	Complete genome	dsDNA	vertebrates vertebrates	
39	38	1 Duplodnaviria	Heunggongvirae Heunggongvirae	Peplovi Peplovi	ricota ricota	Herviviricetes Herviviricetes	H	Herpesvirales Herpesvirales	Alloherpesviridae		Cyvirus Cyvirus		Cyvirus cyprinidallo2 Cyvirus cyprinidallo3	E	goldfish hematopoietic necrosis virus; cyprinid herpesviru kai herpesvirus; cyprinid herpesvirus 3	s 2 CyHV2 KHV: CyHV3	ST-J1 KHV-U	JQ815364 DO657948	NC_019495 NC_009127	Complete genome	dsDNA dsDNA	vertebrates vertebrates	
41	40	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	ŀ	Herpesvirales	Alloherpesviridae		Ictavirus		Ictavirus acipenseridallo2	E	white sturgeon herpesvirus 2; acipenserid herpesvirus 2	AciHV2	SRWSHV	FJ815289	NC_043042	Partial genome	dsDNA	vertebrates	
42	41 42	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	Peplovi Peplovi	ricota ricota	Herviviricetes Herviviricetes	H H	Herpesvirales Herpesvirales	Alloherpesviridae Alloherpesviridae		Ictavirus Ictavirus		Ictavirus ictaluridallo1 Ictavirus ictaluridallo2	E	channel cattish virus; ictalurid herpesvirus 1 black bullhead herpesvirus; ictalurid herpesvirus 2	CCV; IcHV1 IcHV2	Auburn 1 760/94	M75136 MG271984	NC_001493 NC_036579	Complete genome Complete genome	dsDNA dsDNA	vertebrates vertebrates	
44	43	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	F	Herpesvirales	Alloherpesviridae		Salmovirus		Salmovirus salmonidallo1	E	herpesvirus salmonis; salmonid herpesvirus 1	SalHV1 SalHV2	Winthrop NeV/TA	AF023673	NC_043043	Partial genome	dsDNA dsDNA	vertebrates	
46	45	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	, F	Herpesvirales	Alloherpesviridae		Salmovirus		Salmovirus salmonidallo3	E	epizootic epitheliotropic disease virus; salmonid herpesvirus z	rus SalHV3	Wisconsin epider	EU349277	NC_043468	Partial genome	dsDNA	vertebrates	
47	46	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	Peplovi	ricota ricota	Herviviricetes Herviviricetes	F F	Herpesvirales Herpesvirales	Malacoherpesvirida Malacoherpesvirida	e e	Aurivirus Ostreavirus		Aurivirus haliotidmalaco1 Ostreavirus ostreidmalaco1	E	abalone herpesvirus; haliotid herpesvirus 1 ovster herpesvirus: ostreid herpesvirus 1	AbHV1; HaHV1 OHV: OsHV1	Victoria/AUS/200	JX453331 AY509253	NC_018874 NC 005881	Complete genome	dsDNA dsDNA	vertebrates vertebrates	
49	48	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	, F	Herpesvirales	Orthoherpesviridae	Alphaherpesvirinae	Iltovirus	_	Iltovirus cacatuidalpha2	E	cacatuid alphaherpesvirus 2	CcAHV2	CaHV2/Melbourn	MK360902		Complete genome	dsDNA	vertebrates	
50	49 50	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	Peplovi Peplovi	ricota	Herviviricetes Herviviricetes	H H	Herpesvirales Herpesvirales	Orthoherpesviridae Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	litovirus Iltovirus		litovirus gallidalpha1 Iltovirus psittacidalpha1	E	gallid alphaherpesvirus 1; infectious laryngotracheitis viru psittacid alphaherpesvirus 1; Pacheco's disease virus	GaAHV1; ILTV PsAHV1; PDV	SA2 97-0001	JN596962 AY372243	NC_075683 NC_005264	Complete genome Complete genome	dsDNA dsDNA	vertebrates vertebrates	
52	51	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	ŀ	Herpesvirales	Orthoherpesviridae	Alphaherpesvirinae	Iltovirus Mardivin:		lltovirus psittacidalpha5 Mardivinus anatidalpha1	E	psittacid alphaherpesvirus 5	PsAHV5	16-4047	MK955929	NC_077028	Complete genome	dsDNA dsDNA	vertebrates	
54	53	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	, F	Herpesvirales	Orthoherpesviridae	Alphaherpesvirinae	Mardivirus		Mardivirus columbidalpha1	E	columbid alphaherpesvirus 1; pigeon herpesvirus	CoAHV1; PHV	HU	KX589235	NC_034266	Complete genome	dsDNA	vertebrates	
55	54 55	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunaaonavirae	Peplovi Peplovi	ricota ricota	Herviviricetes Herviviricetes	F F	Herpesvirales Herpesvirales	Orthoherpesviridae Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	Mardivirus Mardivirus		Mardivirus gallidalpha2 Mardivirus gallidalpha3	E	gallid alphaherpesvirus 2; Marek's disease virus gallid alphaherpesvirus 3; gallid herpesvirus 3	GaAHV2; MDV GaAHV3	Md5 SB-1	AF243438 HQ840738	NC_002229 NC 075702	Complete genome Complete genome	dsDNA dsDNA	vertebrates vertebrates	
57	56	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	ŀ	Herpesvirales	Orthoherpesviridae	Alphaherpesvirinae	Mardivirus	-	Mardivirus meleagridalpha1	E	meleagrid alphaherpesvirus 1; turkey herpesvirus	MeAHV1; HVT	FC-126 (Burmene	AF291866	NC_002641	Complete genome	dsDNA	vertebrates	
58	57	1 Duplodnaviria 1 Duplodnaviria	Heunggongvirae Heunggongvirae	Peplovi Peplovi	ricota	Herviviricetes Herviviricetes	H H	Herpesvirales Herpesvirales	Orthoherpesviridae Orthoherpesviridae	Alphaherpesvirinae Alphaherpesvirinae	Mardivirus Scutavirus		Maraivirus spheniscidalpha1 Scutavirus chelonidalpha5	E	spheniscid alphaherpesvirus 1 chelonid alphaherpesvirus 5; fibropapilloma-associated ti	spAHV1 artl ChAHV5; FPTHV	CH-651-6009	L1608135 HQ878327	NC_033464 NC_075701	Complete genome Partial genome	dsDNA dsDNA	vertebrates vertebrates	
60	59	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	ŀ	Herpesvirales	Orthoherpesviridae	Alphaherpesvirinae	Scutavirus		Scutavirus testudinidalpha3 Simplexvirus atelinealpha1	E	testudinid alphaherpesvirus 3; testudinid herpesvirus 3 ateline alphaherpesvirus 1; homosiónis atelios 1	TeAHV3; TeHV3	1976	KM924292	NC_027916	Complete genome	dsDNA dsDNA	vertebrates	
62	61	1 Duplodnaviria	Heunggongvirae	Peplovi	ricota	Herviviricetes	, F	Herpesvirales	Orthoherpesviridae	Alphaherpesvirinae	Simplexvirus		Simplexvirus bovinealpha2	E	bovine alphaherpesvirus 2; bovine mammillitis virus	BoAHV2; BMV	C1Z FZR	MT862163	NC_076512	Complete genome	dsDNA	vertebrates	
63	62	1 Duplodnaviria	Heunaaonavirae	Peplovi	ricota	Herviviricetes		Herpesvirales	Orthoherpesviridae	Alphaherpesvirinae	Simplexvirus		Simplexvirus cercopithecinealpha2	E	cercopithecine alphaheroesvirus 2: simian agent 8	CeAHV2: SA8	B264	AY714813	NC 006560	Complete genome	dsDNA	vertebrates	

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2	1 1	Adnaviria		Zilliquirae		Talequiricota		Tokiviricetes		Liggmenvirgles		Lipothrivviridae		Alphalipothrivui	ruc	Alphalipothriwing	s SBEV/2	E	Sulfolobale	s Bennu filamentou
3	2 1	Adnaviria		Zilliavirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Alphalipothrixvii	rus	Alphalipothrixvirus	s SFV1	E	Sulfolobus	filamentous virus 1
4	3 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixviru	IS	Acidianus filamen	tous virus 3	E	Acidianus fi	lamentous virus 3
5	4 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixviru	IS	Acidianus filamen	tous virus 6	E	Acidianus fi	lamentous virus 6
6	5 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixviru	IS	Acidianus filamen	tous virus 7	E	Acidianus fi	lamentous virus 7
7	6 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixviru	IS	Acidianus filamen	tous virus 8	E	Acidianus fi	lamentous virus 8
8	7 1	. Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixviru	15	Acidianus filamen	tous virus 9	E	Acidianus fi	lamentous virus 9
9	8 1	. Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixviru	IS	Sulfolobus islandi	cus filamentous virus	E	Sulfolobus i	slandicus filamentc
10	9 1	Adnaviria Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Deltalipothrixvin	rus	Acidianus filamen Doltalinothriwinus	COUS VIEUS 2	E E	Acidianus fi	amentous virus 2
12	10 1	Adnaviria		Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Azorudivirus	us	Azorudivirus SRV	SDEVS	F	Stygiolobus	rod-shaped virus
13	12 1	Adnaviria		Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus AR	V2	E	Acidianus re	od-shaped virus 2
14	13 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus AR	IV3	E	Acidianus re	od-shaped virus 3
15	14 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus MI	RV1	E	Metallosph	aera rod-shaped vi
16	15 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus SS	RV1	E	Saccharolo	ous solfataricus rod
17	16 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Icerudivirus		Icerudivirus SIRV1	1	E	Sulfolobus i	slandicus rod-shape
18	17 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Icerudivirus		Icerudivirus SIRV2	?	E	Sulfolobus i	slandicus rod-shape
19	18 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes	-	Ligamenvirales		Rudiviridae		Icerudivirus		Icerudivirus SIRV3	3	E	Sulfolobus i	slandicus rod-shape
20	19 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Itarudivirus		Itarudivirus ARV1		E	Acidianus re	od-shaped virus 1
21	20 1	Adnaviria		Zilligvirae	-	Taleaviricota		Tokiviricetes		Ligamenvirales		Ruaiviridae		Japarudivirus		Japarudivirus SBR		E .	Sulfolobale	s Beppu rod-shapec
22	21 1	Adnaviria		Zilliqvirae		Talegviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		I Isarudivirus SM	10	F	Sulfoloburg	s iviexican rod-shap
24	23 1	Adnaviria		Zilliavirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV	11	E	Sulfolobusi	slandicus rod-shape
25	24 1	Adnaviria		Zilliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV	4	E	Sulfolobus	slandicus rod-shape
26	25 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivi <u>rus SIRV</u>	5	E	Sulfolobus i	slandicus rod-shape
27	26 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV	8	E	Sulfolobus i	slandicus rod-shape
28	27 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV	9	E	Sulfolobus i	slandicus rod-shape
29	28 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Ungulaviridae		Captovirus		Captovirus AFV1		E	Acidianus fi	lamentous virus 1
30	29 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Maximonvirales		Ahmunviridae		Yumkaaxvirus		Yumkaaxvirus pes	scaderoense	E	Methanoph	nagales virus PBV30
31	30 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Alphatristromav	virus	Alphatristromavin	us PFV1	E	Pyrobaculu	m filamentous virus
32	31 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Alphatristromav	virus	Alphatristromavin	us PFV2	E	Pyrobaculu	m filamentous viru:
33	32 1	Adnaviria		Zilligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Betatristromavin	rus	Betatristromavirus	s TTV1	E	Thermopro	teus tenax virus 1
34	33 1	Duplodnaviria		Heunggongvirae		Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Batravirus		Batravirus ranidall	01	E	Lucké tumo	r herpesvirus; ranic
35	34 1	Duplodnaviria		Heunggongvirae	-	Peploviricota		Herviviricetes		Herpesvirales		Alloherpesviridae		Batravirus		Batravirus ranidall	02	E	trog virus 4	; ranid herpesvirus
36	35 1	Duplodnaviria		Heunggongvirae		Peploviricota		Herviviricetes	-	Herpesvirales		Alloherpesviridae		Batravirus		Batravirus ranidall	03	t c	ranid herpe	svirus 3
3/	30 1 27 1	Duplodnaviria	-	Heunggongvirae		Pepioviricota		Herviviricetes		Herpesvirales		Allohorposviridae		Cyvirus		Cyvirus anguillidal	01	с.	Japanese e	ei nerpesvirus; ang
30	5/ 1	Duploundvind		neunggongvirae		repiovincola		nervivincetes		nerpesvirules		Anonerpesviriade		Cyvirus		cymrus cyprinidalio		C	carp pox ne	rpesvirus; cypririld

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1		realm		kingdom		phylum		class		order		family		genus		isolate		.,	
2	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Alphalipothrixvirus		Alphalipothrixvirus SBFV2	E	Sulfolobales Beppu fila	mentous virus 2	2
3	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Alphalipothrixvirus		Alphalipothrixvirus SFV1	E	Sulfolobus filamentous	virus 1	
4	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 3	E	Acidianus filamentous	virus 3	
5	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 6	E	Acidianus filamentous	virus 6	
6	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 7	E	Acidianus filamentous	/irus 7	
7	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 8	E	Acidianus filamentous	/irus 8	
8	Adnaviria	ZII	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Acidianus filamentous virus 9	E	Acidianus filamentous v	virus 9	
9	Adnaviria	Z11	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Betalipothrixvirus		Sulfolobus Islandicus filamentou.	E r	Sulfolobus Islandicus fil	amentous virus	6
10	Adnaviria	211	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Lipothrixviridae		Deltalipothrixvirus		Acidianus jiidmentous virus 2	E	Sulfolobales Bennu fila	nrus z	2
11	Adnaviria	71	lliavirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Azorudivirus		Azorudivirus SRV	F	Stygiolobus rod-shaper	l virus	,
13	Adnaviria	Zil	lliavirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswinudivinus ARV2	F	Acidianus rod-shaped	virus 2	
14	Adnaviria	Zil	lliavirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus ARV3	E	Acidianus rod-shaped v	virus 3	
15	Adnaviria	Zil	lliqvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus MRV1	E	Metallosphaera rod-sha	aped virus 1	
16	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Hoswirudivirus		Hoswirudivirus SSRV1	E	Saccharolobus solfatari	cus rod-shaped	virus 1
17	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Icerudivirus		Icerudivirus SIRV1	E	Sulfolobus islandicus ro	d-shaped virus	s 1
18	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Icerudivirus		Icerudivirus SIRV2	E	Sulfolobus islandicus ro	od-shaped virus	5 2
19	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Icerudivirus		Icerudivirus SIRV3	E	Sulfolobus islandicus ro	od-shaped virus	3
20	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Itarudivirus		Itarudivirus ARV1	E	Acidianus rod-shaped v	virus 1	
21	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Japarudivirus		Japarudivirus SBRV1	E	Sulfolobales Beppu rod	-shaped virus 1	
22	Adnaviria	Z11	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Mexirudivirus		Mexirudivirus SMRV1	F	Sulfolobales Mexican ro	od-shaped virus	51
23	Adnaviria	211	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usaruaivirus SIRV1U	F	Sulfolobus Islandicus ro	d-snaped virus	11
24	Adnaviria	71	lligvirge		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV11	F	Sulfolobus islandicus ro	d-shaped virus	5 1 I
25	Adnaviria	71	lliavirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV5	F	Sulfolobus islandicus re	d-shaped virus	5
27	Adnaviria	Zil	lliavirae		Taleaviricota		Tokiviricetes		Liaamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV8	E	Sulfolobus islandicus ro	d-shaped virus	8
28	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Rudiviridae		Usarudivirus		Usarudivirus SIRV9	E	Sulfolobus islandicus ro	od-shaped virus	9
29	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Ligamenvirales		Ungulaviridae		Captovirus		Captovirus AFV1	E	Acidianus filamentous	virus 1	
30	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Maximonvirales		Ahmunviridae		Yumkaaxvirus		Yumkaaxvirus pescaderoense	E	Methanophagales virus	PBV300	
31	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Alphatristromavirus		Alphatristromavirus PFV1	E	Pyrobaculum filamento	us virus 1	
32	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Alphatristromavirus		Alphatristromavirus PFV2	E	Pyrobaculum filamento	us virus 2	
33	Adnaviria	Zil	lligvirae		Taleaviricota		Tokiviricetes		Primavirales		Tristromaviridae		Betatristromavirus		Betatristromavirus TTV1	E	Thermoproteus tenax v	irus 1	

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1	Realm	Sub realm	Kingdom	Sub kingdom	Phylum	Sub phylum	Class	Sub class	Order	Sub order	Family	Sut fami	b ily	Genus	Sub genus	Species	Exemplar or additional isolate	Virus name(s)
7176	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus langatense	E	Langat virus
7177	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus louisense	E	St. Louis encephalitis virus
7178	Riboviria	· · · · ·	Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus loupingi	E	louping ill virus
7179	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus loupingi	A	louping ill virus-British subtype
7180	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus loupingi	A	louping ill virus-Irish subtype
7181	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus loupingi	A	louping ill virus-Spanish subtype
7182	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus loupingi	Α	Turkish sheep encephalitis virus subty
7183	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus loupingi	A	Greek goat encephalitits virus subtype
7184	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus meabanense	E	Meaban virus
7185	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	noflavivirus		Orthoflavivirus modocense	E r	Modoc virus
7186	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orti	hoflavivirus	_		E r	Montana myotis leukoencephalitis viru
/18/	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus murrayense	E A	Alfug virue
/188	NIDOVIIIU		Onnoniavirae		Kitimovincota		Flusuvincetes		Amuniovirules		Fluvivilluue		Olu				A 5	
7189	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orti	noflavivirus		Orthofiavivirus niiense	E .	west Nile virus
7190	Riboviria		Orthornavirae	-8/	Kitrinoviricota		Flasuviricetes		Amarillovirales	-0/	Flaviviridae	-10/	Orth	hoflavivirus	-10/	Orthoflavivirus nilense	Α	Kunjin virus
7191	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales	_	Flaviviridae		Orth	hoflavivirus	_	Orthoflavivirus ntayaense	E	Ntaya virus
7192	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus	_	Orthoflavivirus omskense	E	Omsk hemorrhagic fever virus
7193	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	noflavivirus	_	Orthoflavivirus perlitaense	E	San Perlita virus
7194	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales	-	Flaviviridae		Orti	noflavivirus		Orthoflavivirus phnompennense	E	Phnom Penn bat virus
7195	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orti	noflavivirus	_		A	Batu Cave virus
7196	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orti	hoflavivirus	_	Orthofiavivirus powassanense	E	Powassan virus
7197	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus rovalense	A F	deer tick virus
7198	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus royalense	E E	Royal Farm virus
7199	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus saboyaense	L A	Saboya virus
7200	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus saumarazonso	F	Soumaraz Boof virus
7201	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus sanikansa	6	Sonik virus
7202	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus tembusu	F	Tembusu virus
7203	Riboviria		Orthornavirae		Kitrinoviricota		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus tvulenivense	F	Tyuleniy virus
7204	Riboviria		Orthornavirae		Kitrinoviricota	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus ugandaense	F	Uganda S virus
7206	Riboviria		Orthornavirae		Kitrinoviricoto		Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus usutuense	E	Usutu virus
7207	Riboviria		Orthornavirae		Kitrinoviricoto	1	Flasuviricetes		Amarillovirales		Flaviviridae		Orth	hoflavivirus		Orthoflavivirus vieiaense	F	Sal Vieia virus
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1	Species	Exemplar or additional isolate	Virus name(s)	Virus name abbreviation(s)	Virus isolate designation	Virus GENBANK accession	Virus REFSEQ accession	Genome coverage	Genome composition	Host source
46	Salmovirus salmonidallo3	E	epizootic epitheliotropic disease virus; salmonid herpesvirus 3	SalHV3	Wisconsin epidemic	EU349277	NC_043468	Partial genome	dsDNA	vertebrates
47	Aurivirus haliotidmalaco1	E	abalone herpesvirus; haliotid herpesvirus 1	AbHV1; HaHV1	Victoria/AUS/2009	JX453331	NC_018874	Complete genome	dsDNA	vertebrates
48	Ostreavirus ostreidmalaco1	E	oyster herpesvirus; ostreid herpesvirus 1	OHV; OsHV1		AY509253	NC_005881	Complete genome	dsDNA	vertebrates
49	lltovirus cacatuidalpha2	E	cacatuid alphaherpesvirus 2	CcAHV2	CaHV2/Melbourne/2015	MK360902		Complete genome	dsDNA	vertebrates
50	lltovirus gallidalpha1	E	gallid alphaherpesvirus 1; infectious laryngotracheitis virus	GaAHV1; ILTV	SA2	JN596962	NC_075683	Complete genome	dsDNA	vertebrates
51	lltovirus psittacidalpha1	E	psittacid alphaherpesvirus 1; Pacheco's disease virus	PsAHV1; PDV	97-0001	AY372243	NC_005264	Complete genome	dsDNA	vertebrates
52	lltovirus psittacidalpha5	E	psittacid alphaherpesvirus 5	PsAHV5	16-4047	MK955929	NC_077028	Complete genome	dsDNA	vertebrates
53	Mardivirus anatidalpha1	E	anatid alphaherpesvirus 1; duck enteritis virus	AnAHV1; DEV	2085	JF999965	NC_075687	Complete genome	dsDNA	vertebrates
54	Mardivirus columbidalpha1	E	columbid alphaherpesvirus 1; pigeon herpesvirus	CoAHV1; PHV	HU	KX589235	NC_034266	Complete genome	dsDNA	vertebrates
55	Mardivirus gallidalpha2	E	gallid alphaherpesvirus 2; Marek's disease virus	GaAHV2; MDV	Md5	AF243438	NC_002229	Complete genome	dsDNA	vertebrates
56	Mardivirus gallidalpha3	E	gallid alphaherpesvirus 3; gallid herpesvirus 3	GaAHV3	SB-1	HQ840738	NC_075702	Complete genome	dsDNA	vertebrates
57	Mardivirus meleagridalpha1	E	meleagrid alphaherpesvirus 1; turkey herpesvirus	MeAHV1; HVT	FC-126 (Burmenester)	AF291866	NC_002641	Complete genome	dsDNA	vertebrates
58	Mardivirus spheniscidalpha1	E	spheniscid alphaherpesvirus 1	SpAHV1	lib01004	LT608135	NC_033464	Complete genome	dsDNA	vertebrates
59	Scutavirus chelonidalpha5	E	chelonid alphaherpesvirus 5; fibropapilloma-associated turtle herpes	esvirus ChAHV5; FPTHV	CH-651-60O9	HQ878327	NC_075701	Partial genome	dsDNA	vertebrates
60	Scutavirus testudinidalpha3	E	testudinid alphaherpesvirus 3; testudinid herpesvirus 3	TeAHV3; TeHV3	1976	KM924292	NC_027916	Complete genome	dsDNA	vertebrates
61	Simplexvirus atelinealpha1	E	ateline alphaherpesvirus 1; herpesvirus ateles 1	AtAHV1; HVA1	Lennette	KY385637	NC_034446	Complete genome	dsDNA	vertebrates
62	Simplexvirus bovinealpha2	E	bovine alphaherpesvirus 2; bovine mammillitis virus	BoAHV2; BMV	C1Z FZR	MT862163	NC_076512	Complete genome	dsDNA	vertebrates
63	Simplexvirus cercopithecinealpha2	E	cercopithecine alphaherpesvirus 2; simian agent 8	CeAHV2; SA8	B264	AY714813	NC_006560	Complete genome	dsDNA	vertebrates
64	Simplexvirus humanalpha1	E	human alphaherpesvirus 1; herpes simplex virus type 1	HuAHV1; HSV1	17	JN555585	NC_001806	Complete genome	dsDNA	vertebrates
65	Simplexvirus humanalpha2	E	human alphaherpesvirus 2; herpes simplex virus type 2	HuAHV2; HSV2	HG52	JN561323	NC_001798	Complete genome	dsDNA	vertebrates
66	Simplexvirus leporidalpha4	E	leporid alphaherpesvirus 4; leporid herpesvirus 4	LeAHV4; LHV4	LHV4012612	JQ596859	NC_029311	Complete genome	dsDNA	vertebrates
67	Simplexvirus macacinealpha1	E	macacine alphaherpesvirus 1; B-virus	McAHV1; BV	E2490	AF533768	NC_004812	Complete genome	dsDNA	vertebrates
68	Simplexvirus macacinealpha2	E	macacine alphaherpesvirus 2; lion-tailed macaque herpesvirus 1	McAHV2	8100812	KY628968	NC_076164	Complete genome	dsDNA	vertebrates
69	Simplexvirus macacinealpha3	E	macacine alphaherpesvirus 3; pig-tailed macaque herpesvirus 1	McAHV3	KQ	KY628970	NC_076165	Complete genome	dsDNA	vertebrates
70	Simplexvirus macropodidalpha1	E	macropodid alphaherpesvirus 1; Parma wallaby herpesvirus	MaAHV1	MaHV1.3076/08	K1594769	NC_029132	Complete genome	dsDNA	vertebrates
71	Simplexvirus macropodidalpha2		macropodid alphanerpesvirus 2; Dorcopsis wallaby herpesvirus	MaAHV2	V3U77/U8	IVI1900475		Complete genome	asDNA	vertebrates
72	Simplexvirus macropodidalpha4		macropodid alphanerpesvirus 4	MIAAHV4	V3116/09	W1900474	NC 022677	Complete genome	dsDNA	vertebrates
73	Simplexvirus paninealpha3		panine alphanerpesvirus 3; cnimpanzee herpesvirus	PRAHV3; ChHV	105640	10360576	NC_0236//	Complete genome	dsDNA	vertebrates
74	Simplexvirus papineaipnaz		papine appanerpesvirus 2; nerpesvirus papio 2		V212	DQ149153	NC_007653	Complete genome	deDNA	vertebrates
75	Simplexvirus pteropoalaalpha1		pteropodid alphaherpesvirus 1; fruit bat alphaherpesvirus 1			AD025953	NC_024306	Complete genome		vertebrates
76	Simplexvirus pteropoalaalpha2		pteropould appraner pesvirus 2; eteropus iyiei-associated alphanerpe			LC492974	NC 014567	Complete genome		vertebrates
77	Varicellovirus bovineglaba1		sammine appraner pesvirus 1; ner pesvirus sammin 1		Cooper/NV/SL shallongs 07 11		NC_014507	Complete genome		vertebrates
10		-								

VMR MSL38 v2 Column definitions +

Ready 🚺

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THANK YOU

"Any science is ordering,, and if systematics iis equivalent to ordering, then systematics is synonymous with science."

George Simpson, (1902–1984), American paleontologist



ICTV REPORT



HISTORY

- 1971 First Report
- Updated every 3 to 5 years
- 2011 Ninth Report (1327 pages)
 - pdf of Ninth Report on ICTV website
- Drawbacks of a printed format
 - Out of date when taxonomy changes
 - Cost
 - Limited availability
 - Intense workload for ICTV EC members





ONLINE REPORT - FROM 2016

- On ICTV website
- Free to access
- Family level
- Updated on rolling basis
- Written by ICTV Study Groups
- Edited by ICTV EC members (Editorin-chief: Evelien Adriaenssens)
- Currently covers 120 families



Characteristic	Description
Example	human adenovirus 5 (AC_000008), species Human mastadenovirus C, genus Mastadenovirus
Virion	Non-enveloped icosahedral capsids 90 nm in diameter



ICTV VIRUS TAXONOMY PROFILES

- Two page family summary
- Journal of General Virology
- Open access
- Acts as citation for the ICTV Report chapter
- Profile updated after major taxonomy changes



ICTV VIRUS TAXONOMY PROFILE Benkő et al., Journal of General Virology 2022;103:001721 DOI 10.1099/jgv.0.001721



ICTV Virus Taxonomy Profile: *Adenoviridae* 2022

Mária Benkő¹, Koki Aoki², Niklas Arnberg³, Andrew J. Davison⁴, Marcela Echavarría⁵, Michael Hess⁶, Morris S. Jones⁷, Győző L. Kaján¹, Adriana E. Kajon⁸, Suresh K. Mittal⁹, Iva I. Podgorski¹⁰, Carmen San Martín¹¹, Göran Wadell³, Hidemi Watanabe², Balázs Harrach^{1.*} and ICTV Report Consortium

Abstract

The family *Adenoviridae* includes non-enveloped viruses with linear dsDNA genomes of 25–48kb and medium-sized icosahedral capsids. Adenoviruses have been discovered in vertebrates from fish to humans. The family is divided into six genera, each of which is more common in certain animal groups. The outcome of infection may vary from subclinical to lethal disease. This is a summary of the ICTV Report on the family *Adenoviridae*, which is available at ictv.global/report/adenoviridae.

Table 1. Characteristics of members of the family Adenoviridae

Example:	human adenovirus 5 (AC_000008), species Human mastadenovirus C, genus Mastadenovirus
Virion	Non-enveloped icosahedral capsid 90 nm in diameter



THE ICTV WEB SITE: ACCESSING THE VIRUS TAXONOMY

Data, Tools, and Information



FUTURE PLANS



TRACKING NAME CHANGES

- Types of changes
 - CREATE
 - RENAME taxon name changes
 - MOVE any change to higher ranking taxa, including their renames
 - ABOLISH
 - TYPE designated type species for a genus
 - PROMOTE example conversion of a genus to a family
 - DEMOTE
 - SPLIT create multiple from one
 - MERGE combine multiple into one



NEW RESOURCES

- Visual Taxonomy Browser enhancements (Don Dempsey)
- Virus name lookup (Don Dempsey)
- Application Programming Interface (API) (Don Dempsey)
- Virus sequence lookup (Curtis Hendrickson)



VIRUS SEQUENCE LOOKUP APP

- VMR (Viral Metadata Resource)
 - accession numbers assigned to correct taxonomy
- Genbank provides sequence for VMR entries
- Use homology of a novel sequence to lookup taxonomy
 - Only compare against the validated sequences from the VMR





QUESTIONS? TOPICS FOR FUTURE WEBINARS

Further help: info@ictv.global