

OptiPrep™ Reference List RV08

UNCLASSIFIED VIRUSES & SURVEYS

- ◆ Some viruses have not been classified according to the Baltimore system. This Reference List describes applications of these viruses that have been purified in OptiPrep™-based gradients.
- ◆ This Reference List also includes papers describing disease surveys (Section 8)

1. Archaeal viruses

Sulfolobus

Monocaudavirus

Uldahl, K.B., Wu, L., Hall, A., Papathanasiou, P., Peng, X. and Moghimi, S.M. (2016) *Recognition of extremophilic archaeal viruses by eukaryotic cells: a promising nanoplatform from the third domain of life* Sci. Rep., **6**: 37966

Uldahl, K.B., Walk, S.T., Olshefsky, S.C., Young, M.J. and Peng, X. (2017) *SMV1, an extremely stable thermophilic virus platform for nanoparticle trafficking in the mammalian GI tract* J. Appl. Microbiol., **123**, 1286-1297

Wu, L., Uldahl, K.B., Chen, F., Benasutti, H., Logvinski, D., Vu, V., Banda, N.K., Peng, X., Simberg, D. and Moghimi, S.M. (2017) *Interaction of extremophilic archaeal viruses with human and mouse complement system and viral biodistribution in mice* Mol. Immunol., **90**, 273-279

Spindle-shaped virus 2

Uldahl, K.B., Wu, L., Hall, A., Papathanasiou, P., Peng, X. and Moghimi, S.M. (2016) *Recognition of extremophilic archaeal viruses by eukaryotic cells: a promising nanoplatform from the third domain of life* Sci. Rep., **6**: 37966

Thermococcus prieurii virus 1

Gorlas, A., Koonin, E.V., Bienvenu, N., Prieur, D. and Geslin, C. (2012) *TPV1, the first virus isolated from the hyperthermophilic genus Thermococcus* Environ. Microbiol., **14**, 503–516

2. Bovine serum viruses

Funk, M., Gunst, K., Lucansky, V., Müller, H., zur Hausen, H., de Villiers, E-M. (2014) *Isolation of protein-associated circular DNA from healthy cattle serum* Genome Announc., **2**: e00846-14

3. Circovirus (Circoviridae)

Parras-Moltó, M., Rodríguez-Galet, A., Suárez-Rodríguez, P. and López-Bueno, A. (2018) *Evaluation of bias induced by viral enrichment and random amplification protocols in metagenomic surveys of saliva* DNA viruses Microbiome, **6**: 119

Wang, H., Zhang, K., Lin, C., Zhou, J., Jin, Y., Dong, W., Gu, J., Zhou, J. (2019) *Conformational changes and nuclear entry of porcine circovirus without disassembly* J. Virol., **93**: e00824-19

4. Hepatitis A Virus (Picornaviridae)

Costafreda, M.I. and Kaplan, G. (2019) *Reply to Das et al., “TIM1 (HAVCR1): an essential ‘receptor’ or an ‘accessory attachment factor’ for Hepatitis A virus?”* J. Virol., **93**, e02040-18

Das, A., Maury, W., Lemon, S.M. (2019) *TIM1 (HAVCR1): an essential “receptor” or an “accessory attachment factor” for hepatitis A virus?* J. Virol., **93**, e01793-18

5. Human T cell lymphotropic (leukaemia) virus (HTLV1) Deltaretrovirus

Cao, S., Maldonado, J.O., Grigsby, I.F., Mansky, L.M. and Zhang, W. (2015) *Analysis of human T-cell leukemia virus type 1 particles by using cryo-electron tomography* J. Virol., **89**, 2182-2191

Hémonnot, B., Molle, D., Bardy, M., Gay, B., Laune, D., Devaux, C. and Briant, L. (2006) *Phosphorylation of the HTLV-1 matrix L-domain-containing protein by virus-associated ERK-2 kinase* Virology, **349**, 430-439

- Martin, J.L.**, Mendonça, M., Marusinec, R., Zuczek, J., Angert, I., Blower, R.J., Mueller, J.D., Perilla, J.R. et al (2018) *Critical role of the human T-cell leukemia virus type 1 capsid N-terminal domain for Gag-Gag interactions and virus particle assembly* J. Virol., **14**: e00333-18
- Meissner, M.E.**, Mendonça, L.M., Zhang, W. and Mansky, L.M. (2017) *Polymorphic nature of human T-cell leukemia virus type 1 particle cores as revealed through characterization of a chronically infected cell line* J. Virol., **91**: e00369-17
- Møller-Larsen, A.** and Christensen, T. (1998) *Isolation of a retrovirus from multiple sclerosis patients in self-generated iodixanol gradients* J. Virol. Methods, **73**, 151-161

6. Malaria (virus-like particle production)

SpyTag-AP205 VLPs

- Singh, S.K.**, Thrane, S., Janitzek, C.M., Nielsen, M.A., Theander, T.G., Theisen, M., Salanti, A. and Sander, A.F. (2017) *Improving the malaria transmission-blocking activity of a Plasmodium falciparum 48/45 based vaccine antigen by SpyTag/SpyCatcher mediated virus-like display* Vaccine, **35**, 3726–3732

7. Malarial vaccine

- Janitzek, C.M.**, Peabody, J., Thrane, S., Carlsen, P.H.R., Theander, T.G., Salanti, A., Chackerian, B., Nielsen, M.A. and Sander, A.F. (2019) *A proof-of-concept study for the design of a VLP-based combinatorial HPV and placental malaria vaccine* Sci. Rep., **9**: 5260

8. Metagenomic surveys

- Parras-Moltó, M.**, Rodríguez-Galet, A., Suárez-Rodríguez, P. and López-Bueno, A. (2018) *Evaluation of bias induced by viral enrichment and random amplification protocols in metagenomic surveys of saliva DNA viruses* Microbiome, **6**: 119
- Dugat-Bony, E.**, Lossouarn, J., De Paepe, M., Sarthou, A.-S., Fedala, Y., Petit, M.A. and Chaillou, S. (2020) *Viral metagenomic analysis of the cheese surface: a comparative study of rapid procedures for extracting viral particles* Food Microbiology 85 (2020) 103278

9. Nodavirus

Macrobrachium rosenbergii

- Gangnonngiw, W.**, Bunnontae, M., Phiwsaiya, K., Senapin, S. and Dhar, A.K. (2020) *In experimental challenge with infectious clones of Macrobrachium rosenbergii nodavirus (MrNV) and extra small virus (XSV), MrNV alone can cause mortality in freshwater prawn (Macrobrachium rosenbergii)* Virology, **540**, 30–37

10. Oncolytic viruses

- Selman, M.**, Rousso, C., Bergeron, A., Son, H.H., Krishnan, R., El-Sayes, N.A., Varette, O., Chen, A. et al (2018) *Multi-modal potentiation of oncolytic virotherapy by vanadium compounds* Mol. Ther., **26**, 56-69

11. Plant virus-like particles

- Van Zyl, A.R.** and Hitzeroth, I.I. (2016) *Purification of virus-like particles (VLPs) from plants* In Vaccine Design: Methods and Protocols, Vol. 2: Vaccines for Veterinary Diseases, Methods in Molecular Biology, vol. 1404 (ed. Thomas, S.) Springer Science+Business Media New York pp 569-579

12. Plasmids

Antarctic haloarchaeon

- Erdmann, S.**, Tschitschko, B., Zhong, L., Raftery, M.J. and Cavicchioli, R. (2017) *A plasmid from an Antarctic haloarchaeon uses specialized membrane vesicles to disseminate and infect plasmid-free cells* Nat. Microbiol., **1446**, 1446–1455

13. Saliva viruses

- Parras-Moltó, M.**, Rodríguez-Galet, A., Suárez-Rodríguez, P. and López-Bueno, A. (2018) *Evaluation of bias induced by viral enrichment and random amplification protocols in metagenomic surveys of saliva DNA viruses* Microbiome, **6**: 119

14. Vaccine manufacture Zhao, M., Vandersluis, M., Stout, J., Haupts, U., Sanders, M. and Jacquemart, R. (2019) *Affinity chromatography for vaccines manufacturing: Finally ready for prime time?* Vaccine, **37**, 5491–5503

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