

# Resource Summary Report

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## PCTE Protocol for VLP enumeration

DOI:10.17504/protocols.io.eaubaew

Type: Protocol

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### Proper Citation

Ken Stedman, Geoffrey Diemer, Jennifer E Kyle 2016. PCTE Protocol for VLP enumeration. protocols.io [dx.doi.org/10.17504/protocols.io.eaubaew](https://dx.doi.org/10.17504/protocols.io.eaubaew)

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### Protocol Information

**URL:** <https://dx.doi.org/10.17504/protocols.io.eaubaew>

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**Group:** VERVE Net

**Summary:** An alternative epifluorescence microscopy (EFM) technique for virus enumeration has been developed using polycarbonate Track Etch (PCTE) filter membranes in place of aluminum oxide Anodisc membranes. The established EFM technique, first developed by Hennes and Suttle in 1995 and later expanded upon by Noble and Fuhrman in 1998, uses supported 20 nm pore-size Anodisc filter membranes to determine virus abundance in natural environments. Increased price and sporadic availability of Anodisc filters stimulated the evaluation of alternative filters for use in the procedure. The feasibility of using 30 nm pore-size PCTE filters for virus enumeration was assessed using the Anodisc filter procedure as a control. Although virion particle counts are slightly less precise using PCTE filters, they offer a substitute for Anodiscs while requiring only minor adjustments to the established protocol. Per slide, the PCTE costs approximately ten times less to prepare than the Anodisc-based method.

**Affiliations:** Stedman Lab, Stedman Lab, Stedman Lab

**External URL:** [http://web.pdx.edu/~kstedman/PCTE\\_virus\\_counting\\_protocol.pdf](http://web.pdx.edu/~kstedman/PCTE_virus_counting_protocol.pdf)

**Version:** 1

**Publication Date:** 2016

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**Record Creation Time:** 20210329T220525+0000

**Record Last Update:** 20210329T220916+0000

# Data and Source Information

**Source:**