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2X PEG

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dx.doi.org/10.17504/protocols.io.bycgpstw

GenomeTrakr

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This method was developed at the FDA's Center for Food Safety and Applied Nutrition for GenomeTrakr's pandemic response project, monitoring SARS-CoV-2 variants in wastewater. Protocols developed for this project cover wastewater collection, concentration, RNA extraction, RT-qPCR detection, library prep, genome sequencing, quality control checks, and data submission to NCBI. This method provides a reagent formula required in the rapid concentration of intact viruses from wastewater using a combination of PEG precipitation and ultracentrifugation.

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Ruth Timme

US Food and Drug Administration

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US Food and Drug Administration

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In steps of

[Virus Concentration from Wastewater Using PEG Precipitation and Ultracentrifugation](#)



 **PEG-20000 Sigma**

Aldrich Catalog #81275-1KG Step 1.1

 **Sodium Chloride Fisher**

Scientific Catalog #S271 Step 1.2

Deionized or ultrapure water

- 1 Dissolve components in ~  **700 mL** deionized or ultrapure water. Heating to  **50 °C** is recommended to facilitate dissolution.

1.1

 **PEG-20000 Sigma**

 **200 g** **Aldrich Catalog #81275-1KG**

, or

equivalent

1.2

 **Sodium Chloride Fisher**

 **34.8 g** **Scientific Catalog #S271**

, or

equivalent.

- 2 Bring total volume up to  **1 L** with deionized or ultrapure water.

- 3 Autoclave  **121 °C**  **00:15:00**.

15m

- 4 Store at  **Room temperature** protected from light.