




Aug 26, 2022

# Nasal Lavage Sample collection and processing

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1 Works for me

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## ABSTRACT

This protocol describes the nasal lavage fluid sampling that can be used for Omics (for Proteome analysis, see Schoenebeck et al, 2015; for Microbiome analysis see Heintz-Buschart et al, 2017) or RT-QuIC. Collection procedure was adapted from B. Schoenebeck et al. 2015 (doi:10.1016/j.bbapap.2015.01.015).

## PROTOCOL CITATION

maria.xylaki 2022. Nasal Lavage Sample collection and processing .  
**protocols.io**  
<https://protocols.io/view/nasal-lavage-sample-collection-and-processing-cfs4tngw>

MANUSCRIPT CITATION please remember to cite the following publication along with this protocol

Schoenebeck B, May C, Güldner C, Respondek G, Mollenhauer B, Hoeglenger G, et al. Improved preparation of nasal lavage fluid (NLF) as a noninvasive sample for proteomic biomarker discovery. Biochim Biophys Acta - Proteins Proteomics. Elsevier B.V.; 2015;1854:741–5.

#### KEYWORDS

nasal, lavage, fluid, olfactory, sample, collection

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#### CREATED

Aug 25, 2022

#### LAST MODIFIED

Aug 26, 2022

#### PROTOCOL INTEGER ID

69180

#### MATERIALS TEXT

- benchtop centrifuge with cooling function
- regular lab equipment (pipetts, tips, tubes)
- plastic disposable pipettes
- NaCl 0.9%, 10% and 20% (w/v) aqueous solutions

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#### Nasal Lavage Sample collection

- 1 Two nasal lavage samples (NLS) are collected per person in each step, one from each nostril. Both nasal cavities are pre-washed with 2 mL of physiological NaCl solution with the use of a plastic disposable pipette to remove bacterial impurities.

- 2 After 5 mins of incubation, each nasal cavity is rinsed again with 2 mL physiological NaCl solution with subsequent collection of the NLS into a tube.
- 3 Following this step, an additional rinse is performed with 2 mL NaCl 10% (w/v) aqueous solution and collection of the NLS into a tube.
- 4 A final rinse is performed with 2 mL NaCl 20% (w/v) aqueous solution and collection of the NLS into a tube.
- 5 Depending on downstream applications, NLS samples can be immediately frozen at -80 °C until analysis or centrifuged at 10.000 x g for 5 mins at 4 °C in order to remove cellular debris and then stored.