



Aug 27, 2022

Version 1

# Nasal Lavage Sample collection and processing V.1

DOI

[dx.doi.org/10.17504/protocols.io.kxygx9keog8j/v1](https://dx.doi.org/10.17504/protocols.io.kxygx9keog8j/v1)

Mary Xylaki<sup>1</sup>

<sup>1</sup>University Medical Center Goettingen



Mary Xylaki

UMG

## Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.kxygx9keog8j/v1>

**Protocol Citation:** Mary Xylaki 2022. Nasal Lavage Sample collection and processing . **protocols.io**

<https://dx.doi.org/10.17504/protocols.io.kxygx9keog8j/v1>

### Manuscript citation:

Schoenebeck B, May C, Güldner C, Respondek G, Mollenhauer B, Hoeglinger 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.

**License:** This is an open access protocol distributed under the terms of the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited



**Protocol status:** Working

**We use this protocol and it's working**

**Created:** August 25, 2022

**Last Modified:** May 31, 2024

**Protocol Integer ID:** 69180

**Keywords:** nasal, lavage, fluid, olfactory, sample, collection, ASAPCRN, nasal lavage fluid sampling, nasal lavage sample collection, proteome analysis, microbiome analysis, sample, omic

## Disclaimer

### DISCLAIMER – FOR INFORMATIONAL PURPOSES ONLY; USE AT YOUR OWN RISK

The protocol content here is for informational purposes only and does not constitute legal, medical, clinical, or safety advice, or otherwise; content added to **protocols.io** is not peer reviewed and may not have undergone a formal approval of any kind. Information presented in this protocol should not substitute for independent professional judgment, advice, diagnosis, or treatment. Any action you take or refrain from taking using or relying upon the information presented here is strictly at your own risk. You agree that neither the Company nor any of the authors, contributors, administrators, or anyone else associated with **protocols.io**, can be held responsible for your use of the information contained in or linked to this protocol or any of our Sites/Apps and Services.

## 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-QulC. Collection procedure was adapted from B. Schoenebeck et al. 2015 (doi:10.1016/j.bbapap.2015.01.015).

## Materials

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

## Troubleshooting

## 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.