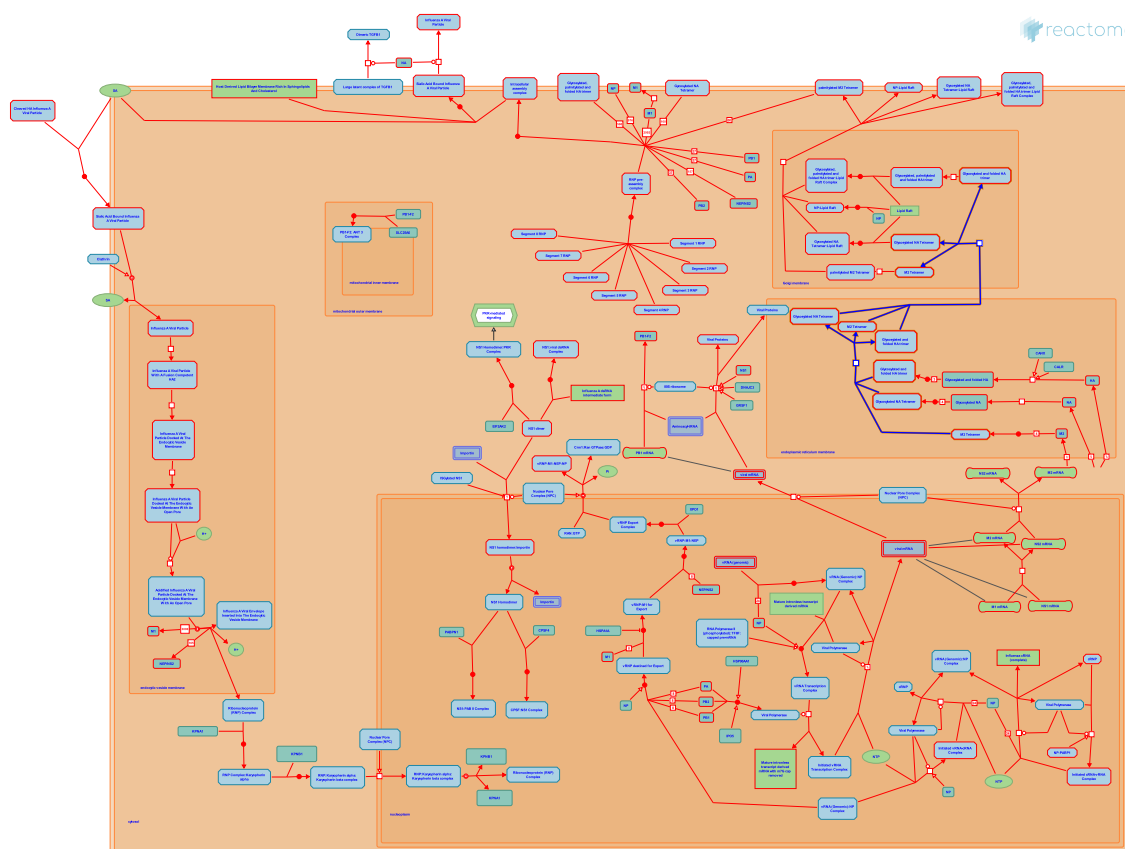


# Transport of HA trimer, NA tetramer and M2 tetramer from the endoplasmic reticulum to the Golgi Apparatus



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This is just an excerpt of a full-length report for this pathway. To access the complete report, please download it at the [Reactome Textbook](https://reactome.org/page/about-us).

18/05/2024

## Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

## Literature references

- Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics*, 18, 142. [↗](#)
- Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467. [↗](#)
- Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res*, 46, D649-D655. [↗](#)
- Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

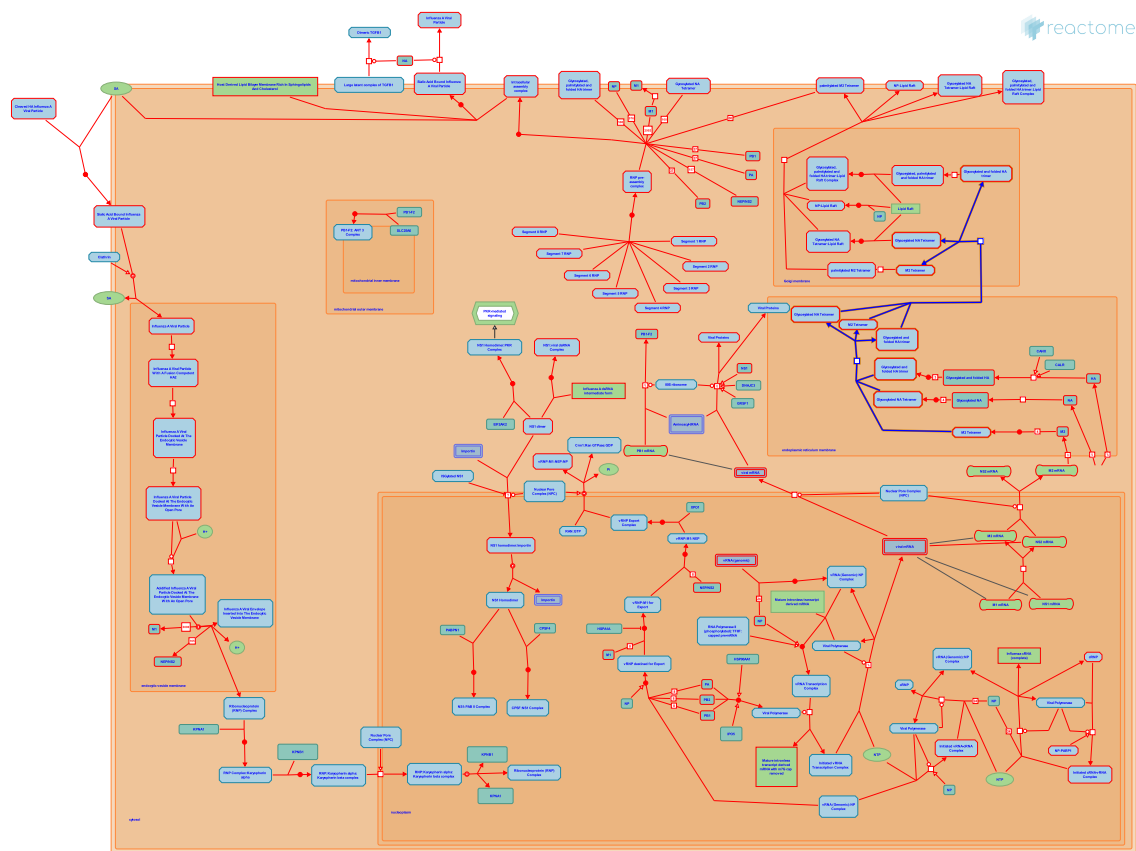
Reactome database release: 88

This document contains 1 pathway and 2 reactions ([see Table of Contents](#))

# Transport of HA trimer, NA tetramer and M2 tetramer from the endoplasmic reticulum to the Golgi Apparatus ↗

Stable identifier: R-HSA-168874

Diseases: influenza



Processed viral proteins are transported from the endoplasmic reticulum to the Golgi apparatus.

## Literature references

Shaw, ML., Palese, P. (2001). Orthomyxoviridae: The Viruses and Their Replication. *Fields Virology, 5th edition* D.M. Knipe and P.M. Howley, Editors. 2006, Lippencott Williams and Wilkins: Philadelphia  
ISBN-10: 0-7817-6060-7, 1647-1689. ↗

## Editions

2007-05-01	Reviewed	Rush, MG., Squires, B.
2007-05-01	Authored	Steel, J.

**Budding of vesicle with the HA trimer, NA tetramer and M2 tetramer from the endoplasmic reticulum into the cytosol ↗**

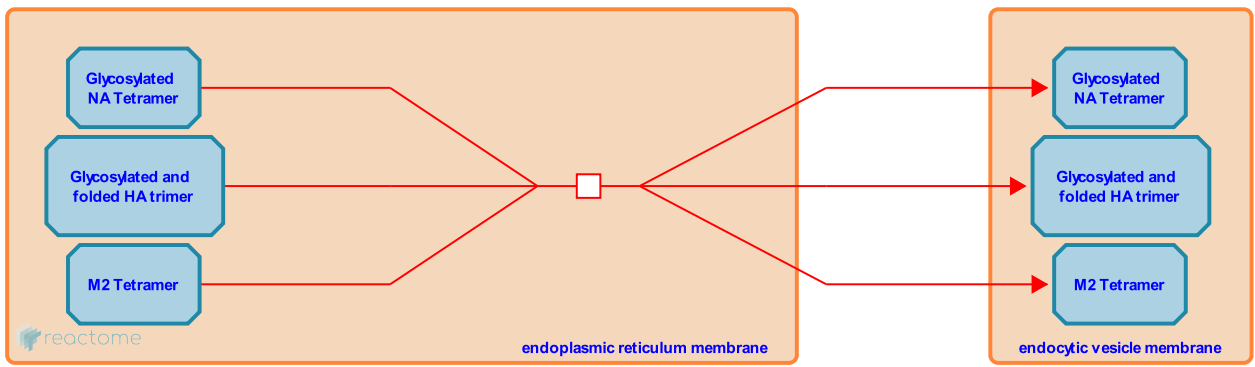
**Location:** [Transport of HA trimer, NA tetramer and M2 tetramer from the endoplasmic reticulum to the Golgi Apparatus](#)

**Stable identifier:** R-HSA-168869

**Type:** transition

**Compartments:** endoplasmic reticulum membrane, endocytic vesicle membrane

**Diseases:** influenza



Viral proteins are packaged into a golgi apparatus bound transport vesicle.

**Followed by:** [Fusion of vesicle containing the HA trimer, NA tetramer and M2 tetramer to the Golgi apparatus](#)

**Literature references**

Shaw, ML., Palese, P. (2001). Orthomyxoviridae: The Viruses and Their Replication. *Fields Virology, 5th edition* D.M. Knipe and P.M. Howley, Editors. 2006, Lippencott Williams and Wilkins: Philadelphia  
ISBN-10: 0-7817-6060-7, 1647-1689. ↗

**Editions**

2007-05-01	Reviewed	Rush, MG., Squires, B.
2007-05-01	Authored	Steel, J.

## Fusion of vesicle containing the HA trimer, NA tetramer and M2 tetramer to the Golgi apparatus ↗

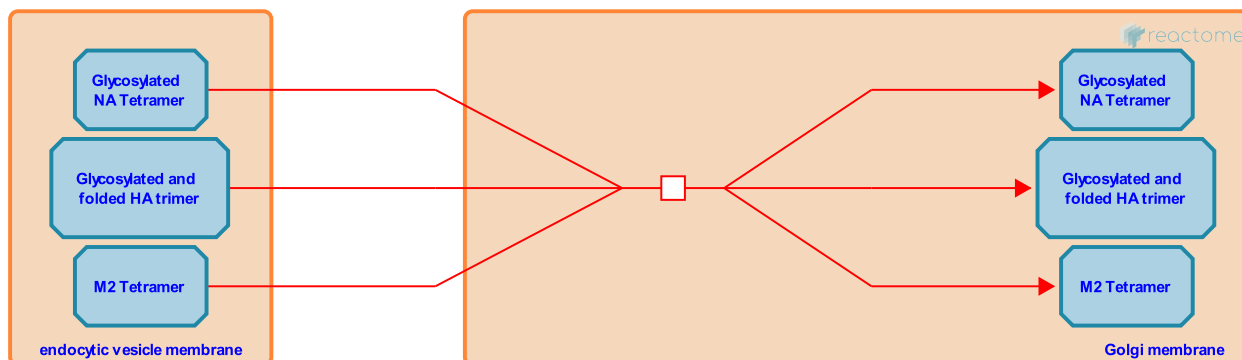
**Location:** Transport of HA trimer, NA tetramer and M2 tetramer from the endoplasmic reticulum to the Golgi Apparatus

**Stable identifier:** R-HSA-168871

**Type:** transition

**Compartment:** Golgi membrane, endocytic vesicle membrane

**Diseases:** influenza



Once the transport vesicle arrives at the Golgi apparatus, it docks and dumps its contents into the Golgi lumen.

**Preceded by:** Budding of vesicle with the HA trimer, NA tetramer and M2 tetramer from the endoplasmic reticulum into the cytosol

## Literature references

Shaw, M.L., Palese, P. (2001). Orthomyxoviridae: The Viruses and Their Replication. *Fields Virology*, 5th edition D.M. Knipe and P.M. Howley, Editors. 2006, Lippencott Williams and Wilkins: Philadelphia  
ISBN-10: 0-7817-6060-7, 1647-1689. ↗

## Editions

2007-05-01	Reviewed	Rush, MG., Squires, B.
2007-05-01	Authored	Steel, J.

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