

Class: SARS-CoV U274

Attributes: (1)

Accession #: NP_828852

Synonyms: Orf 3a

Molecular weight: unknown

Number of amino acids: 274

Structure:

- N terminus faces the extracellular matrix
- C terminus faces the cytoplasm
- topology is predicted to have three transmembrane domains (not proven)

Location:

- localized to perinuclear region as well as to plasma membrane
- deletion of cytoplasmic domain containing Yxx ϕ and diacidic motifs abolished transport to the cell surface

Functions:

- when on cell surface it has the ability to internalize antibodies
- can undergo endocytosis
- may play a role in viral assembly and/or release of virus from infected cells

Responsibilities:

Collaborators:

Functional consequence unknown

S protein (1)

Functional consequence unknown

E protein (1)

Functional consequence unknown

M protein(1)

Functional consequence unknown

U122 (1)

Functional consequence unknown

caveolin-1 (2)

- 1) Tan, Y.J., et al., (2004) A novel severe acute respiratory syndrome coronavirus protein, U274, is transported to the cell surface and undergoes endocytosis, *J Virol*, **78(13)**, 6723-34.
- 2) Cai, Q.C., et al., (2003) Putative caveolin-binding sites in SARS-CoV proteins, *Acta Pharmacol Sin*, **24(10)**, 1051-9.