OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AM05766PU-N

Respiratory Syncytial Virus / RSV (Fusion protein) Mouse Monoclonal Antibody [Clone ID: 0681]

Product data:

Product Type:	Primary Antibodies
Clone Name:	0681
Applications:	ELISA, IF
Recommended Dilution:	**ELISA:** 1/20-1/200. **Immunofluorescence:** 1/10-1/50.
Reactivity:	Respiratory Syncytial Virus
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Specificity:	This antibody is specific for the fusion protein of Respiratory Syncytical Virus (RSV). This clone has been reported for use in neutralising studies. Removal of Sodium Azide is recommended prior to use in Functional Assays.
Formulation:	Phosphate buffered saline pH 7.2 containing 0.09% Sodium Azide as preservative. State: Purified State: Liquid purified IgG fraction.
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.

View online »

Background:

Respiratory Syncytial Virus (RSV) Fusion (F) Glycoprotein is a Class I viral fusion protein. Under the current model, the protein has at least 3 conformational states: pre-fusion native state, pre-hairpin intermediate state, and post-fusion hairpin state. During viral and target cell membrane fusion, the heptad repeat (HR) regions assume a trimer-of-hairpins structure, positioning the fusion peptide in close proximity to the C-terminal region of the ectodomain. The formation of this structure appears to drive apposition and subsequent fusion of viral and target cell membranes. Directs fusion of viral and cellular membranes leading to delivery of the nucleocapsid into the cytoplasm. This fusion is pH independent and occurs directly at the outer cell membrane. The trimer of F1-F2 (protein F) interacts with glycoprotein G at the virion surface. Upon binding of G to heparan sulfate, the hydrophobic fusion peptide is unmasked and interacts with the cellular membrane, inducing the fusion between host cell and virion membranes. Notably, RSV fusion protein is able to interact directly with heparan sulfate and therefore actively participates in virus attachment. Furthermore, the F2 subunit was identifed as the major determinant of RSV host cell specificity. Later in infection, proteins F expressed at the plasma membrane of infected cells mediate fusion with adjacent cells to form syncytia, a cytopathic effect that could lead to tissue necrosis. The fusion protein is also able to trigger p53-dependent apoptosis.