



Recombinant Protein Technical Manual

Recombinant Human IFITM3 Protein (Fc Tag)

RPES2818

Product Data:

Product SKU: RPES2818

Size: 100µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_066362.2

Protein Information:

Molecular Mass: 32.9 kDa

AP Molecular Mass: 33-45 kDa

Tag: N-Fc

Bio-activity:

Purity: > 99 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: 1-8U;DSPA2b;IP15

Immunogen Information:

Sequence: Met 1-His57

Background:

Interferon-induced transmembrane protein 3 (IFITM3) belongs to the CD225 family. To replicate, viruses must gain access to the host cell's resources. Interferon (IFN) regulates the actions of a large complement of interferon effector genes (IEGs) that prevent viral replication. The interferon inducible transmembrane protein family members, IFITM1, 2 and 3, are IEGs required for inhibition of influenza A virus, dengue virus, and West Nile virus replication in vitro. IFITM3 is an IFN-induced antiviral protein that mediates cellular innate immunity to at least three major human pathogens, namely influenza A H1N1 virus, West Nile virus (WNV), and dengue virus (WNV), by inhibiting the early step(s) of replication. It is both necessary and sufficient for preventing the emergence of viral genomes from the endosomal pathway. Viral pseudoparticles were inhibited from transferring their contents into the host cell cytosol by IFN, and IFITM3 was required and sufficient for this action. IFITM3 overexpression is sufficient for this phenotype. Moreover, IFITM3 partially resides in late endosomal and lysosomal structures, placing it in the path of invading viruses.