Recombinant Protein Technical Manual

Recombinant Human GM2A Protein (Baculovirus, His Tag)

RPES4179

Product Data:

Product SKU: RPES4179

Size: 10µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: AAA35907.1

Protein Information:

Molecular Mass: 19.8 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity:

Purity: > 96 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

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

Formulation: Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

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

Application:

Synonyms: Ganglioside GM2 activator;Cerebroside sulfate activator protein;GM2-AP;Sphingolipid activator protein 3;SAP-3

Immunogen Information:

Sequence: Met 1-Ile 193

Background:

GM2A (GM2 ganglioside activator), is a lipid transfer protein which belongs to the ML domain family. GM2A can accommodate several single chain phospholipids and fatty acids. It also exhibits some calcium-independent phospholipase activity. GM2A binds gangliosides and stimulates ganglioside GM2 degradation. It stimulates only the breakdown of ganglioside GM2 and glycolipid GA2 by beta-hexosaminidase A. GM2A acts as a substrate specific co-factor for the lysosomal enzyme β-hexosaminidase A. β-hexosaminidase A, together with GM2 ganglioside activator, catalyzes the degradation of the ganglioside GM2, and other molecules containing terminal N-acetyl hexosamines. It extracts single GM2 molecules from membranes and presents them in soluble form to beta-hexosaminidase A for cleavage of N-acetyl-D-galactosamine and conversion to GM3. Defects in GM2A are the cause of GM2-gangliosidosis type AB (GM2GAB), also known as Tay-Sachs disease AB variant.