



Recombinant Protein Technical Manual

Recombinant Human SPG21 Protein (GST Tag)

RPES2323

Product Data:

Product SKU: RPES2323

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: NP_057714.1

Protein Information:

Molecular Mass: 61 kDa

AP Molecular Mass: 61 kDa

Tag: N-GST

Bio-activity:

Purity: > 90 % 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 50mM Tris, 100mM NaCl, pH 8.0, 10% glycerol

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

Application:

Synonyms: ACP33;BM-019;GL010;MAST

Immunogen Information:

Sequence: Met 1-Gln 308

Background:

Spastic paraplegia 21 (SPG21), also known as acid Cluster Protein 33 (ACP33) and Mast syndrome protein, is a member of the AB hydrolase superfamily. Human SPG21 is a 308 amino acid residue protein widely expressed in all tissues, including heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. SPG21 binds to the hydrophobic C-terminal amino acids of CD4 which are involved in repression of T cell activation via the noncatalytic alpha/beta hydrolase fold domain. SPG21 thus is proposed to play a role as a negative regulatory factor in CD4-dependent T-cell activation of CD4. Defects in SPG21 are the cause of spastic paraplegia autosomal recessive type 21, also known as Mast syndrome, a neurodegenerative disorder characterized by a slow, gradual, progressive weakness and spasticity of the lower limbs. Rate of progression and the severity of symptoms are quite variable. SPG21 is also associated with dementia and other central nervous system abnormalities.