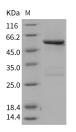
## **Recombinant Human SPG21 Protein (GST Tag)**

Catalog Number: PKSH031550



Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	ACP33;BM-019;GL010;MAST
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Gln 308
Accession	NP_057714.1
Calculated Molecular Weight	61.0 kDa
Observed molecular weight	61 kDa
Tag	N-GST
Properties	
Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
Storage	Generally, 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 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.
Data	



> 90 % as determined by reducing SDS-PAGE.

## 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

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other central nervous system abnormalities.

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