

Recombinant Human STXBP1/UNC18A Protein (His & GST Tag)

Catalog Number: PKSH031010

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

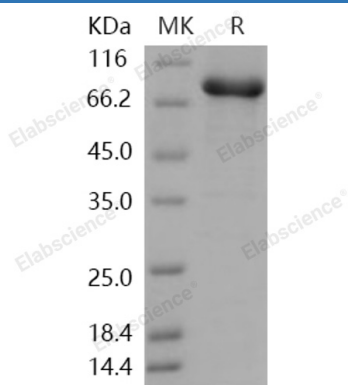
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human STXBP1/UNC18A protein Met 1-Ser 594, with an N-terminal His & GST
Calculated MW	95.4 kDa
Observed MW	80 kDa
Accession	P61764-1
Bio-activity	Not validated for activity

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg 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 20mM Tris, 500mM NaCl, 0.5mM PMSF, 10% glycerol, pH 8.0 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 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



> 85 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

Syntaxin-binding protein 1, also known as N-Sec1, Protein unc-18 homolog 1, MUNC18-1 and STXBP1, is a peripheral membrane protein which belongs to the STXBP / unc-18 / SEC1 family. STXBP1 is an evolutionally conserved neuronal Sec1/Munc-18 (SM) protein that is essential in synaptic vesicle release in several species. It may participate in the regulation of synaptic vesicle docking and fusion, possibly through interaction with GTP-binding proteins. STXBP1 is essential for neurotransmission and binds syntaxin, a component of the synaptic vesicle fusion machinery probably in a 1:1 ratio. It can interact with syntaxins 1, 2, and 3 but not syntaxin 4. STXBP1 may also play a role in determining the specificity of intracellular fusion reactions. Defects in STXBP1 are the cause of epileptic encephalopathy early infantile type 4 (EIEE4). Affected individuals have neonatal or infantile onset of seizures, suppression-burst pattern on EEG, profound mental retardation, and MRI evidence of hypomyelination.