

Syntaxin-BP1 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P77092
Synonyms:	Syntaxin-binding protein 1; MUNC18-1; N-Sec1; UNC18A; p67
Species:	Human
Source:	Sf9 insect cells
Accession:	P61764 (M1-S594)
Gene ID:	6812
Molecular Weight:	Approximately 80 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, 0.5 mM PMSF, 10% Glycerol, pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>Syntaxin-BP1 Protein plays a crucial role in the regulation of synaptic vesicle docking and fusion by interacting with GTP-binding proteins, and it is essential for efficient neurotransmission. This protein binds to syntaxin, a key component of the synaptic vesicle fusion machinery, likely in a 1:1 ratio, and demonstrates interaction specificity with syntaxins 1, 2, and 3, excluding syntaxin 4. Syntaxin-BP1 is actively involved in neurotransmitter release from neurons by interacting with SNARE complex component STX1A, facilitating the assembly of the SNARE complex at synaptic membranes. This interaction recruits SNARE complex components SNAP25 and VAMP2, contributing to the mediation of neurotransmitter release. Moreover, Syntaxin-BP1 engages in interactions with alpha-synuclein/SNCA, exerting control over SNCA self-replicating aggregation. Additionally, its interaction with RAB3A promotes RAB3A dissociation from the vesicle membrane, further emphasizing its multifaceted role in synaptic processes. The protein also interacts with CABP5, highlighting its involvement in diverse molecular interactions within the neuronal environment.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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