



## Product Datasheet

<b>Product Name</b>	Syntaxin-1A Human Recombinant
<b>Cata No</b>	CB501185
<b>Source</b>	<i>Escherichia Coli.</i>
<b>Synonyms</b>	STX1, HPC-1, p35-1, Syntaxin-1A, Neuron-specific antigen HPC-1, STX-1A, STX1A.

### Description

Syntaxin is membrane integrated Q-SNARE protein participating in exocytosis. Syntaxin is composed of an N-terminal regulatory domain (Habc), a SNARE domain (known as H3), and a single C-terminal transmembrane domain. The SNARE (H3) domain binds to both synaptobrevin and SNAP-25 forming the core SNARE complex. Synaptic vesicles store neurotransmitters that are released during calcium-regulated exocytosis. The specificity of neurotransmitter release requires the localization of both synaptic vesicles and calcium channels to the presynaptic active zone. Syntaxins function in this vesicle fusion process. Syntaxins also serve as a substrate for botulinum neurotoxin type C, a metalloprotease that blocks exocytosis and has high affinity for a molecular complex that includes the alpha-latrotoxin receptor which produces exocytosis. Syntaxin-1A Human Recombinant fused to N-terminal His-Tag produced in E.Coli is a single, non-glycosylated polypeptide chain containing 226 amino acids (1-226) and having a molecular mass of 26.1 kDa.

Recombinant Human STX1A contains N-terminal domain (Habc) and t<sub>v</sub>SNARE domain (H3 domain).

### Physical Appearance

Sterile Filtered colorless solution.

### Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

### Formulation

The protein solution contains 20mM Tris-HCl pH7.5, 10% glycerol, and 1mM DTT.

### Stability

STX1 although stable 4°C for 4 weeks, should be stored desiccated below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

### Sequence

MKDRTQELRT AKDSDDDDDDV AVTVDRDRFM  
DEFFEQVEEI RGFIDKIAEN VEEVKRKHSA  
ILASPNPDEK TKEELEELMS DIKKTANKVR  
SKLKSIEQSI EQEEGLNRSS ADLRIRKTQH  
STLSRKFEV MSEYNATQSD YRERCKGRIQ  
RQLEITGRTT TSEELEDMLE SGNPAIFASG  
IIMDSSISKQ ALSEIETRHS EIIKLENSIR  
ELHDMFMDMA MLVESQ