SYT2/Synaptotagmin-2 Protein, Rat (Cell-Free, His)

Cat. No.:	HY-P702465
Synonyms:	Synaptotagmin-2; Synaptotagmin II; SytII
Species:	Rat
Source:	E. coli Cell-free
Accession:	P29101 (M1-K422)
Gene ID:	24805
Molecular Weight:	48.7 kDa

PROPERTIES

AA Sequence	M R N I F K R N Q E P I V A P A T T T A T M P L A P A A P A D N S T E S T G T G E S Q E D M F A K L K D K F F N E I N K I P L P P W A L I A M A V V A G L L L L T C C F C I C K K C C C K K K K N K K E K G K G M K N A M N M K D M K G G Q D D D D A E T G L T E G E G E G E E E K E P E N L G K L Q F S L D Y D F Q A N Q L T V G V L Q A A E L P A L D M G G T S D P Y V K V F L L P D K K K K Y E T K V H R K T L N P A F N E T F T F K V P Y Q E L G G K T L V M A I Y D F D R F S K H D I I G E V K V P M N T V D L G Q P I E E W R D L Q G G E K E E P E K L G D I C T S L R Y V P T A G K L T V C I L E A K N L K K M D V G G L S D P Y V K I H L M Q N G K R L K K K K T T V K K K T L N P Y F N E S F S F E I P F E Q I Q K V Q V V V T V L D Y D K L G K N E A I G K I F V G S N A T G T E L R H W S D M L A N P R R P I A Q W H S L K P E E E V D A L L G K N K
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
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	SYT2/Synaptotagmin-2 protein displays calcium-dependent phospholipid and inositol polyphosphate binding properties, suggesting its involvement in regulating membrane interactions during the trafficking of synaptic vesicles at the active zone of the synapse. Furthermore, SYT2 plays a role in dendrite formation by melanocytes, contributing to cellular morphology. In the context of microbial infection, SYT2 serves as a receptor for C.botulinum neurotoxin type B (BoNT/B, botB). Notably, the interaction between SYT2 and BoNT/B is not enhanced in the presence of gangliosides, distinguishing it from other botulinum neurotoxin receptors. The toxin specifically binds to the vesicular domain of SYT2, emphasizing its functional role in the pathogenic mechanism of BoNT/B. These diverse roles underscore the significance of SYT2 in mediating cellular processes and responding to external signals, both in normal cellular function and in the context of microbial interactions.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA