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GABARAPL2 (GATE16) Blocking Peptide (P71)

Synthetic peptide
Catalog # BP1822a

Specification

GABARAPL2 (GATE16) Blocking Peptide (P71) - Product Information

Primary Accession	P60520
Other Accession	P60522, P60521, P60519, Q6TH05

GABARAPL2 (GATE16) Blocking Peptide (P71) - Additional Information

Gene ID 11345

Other Names
Gamma-aminobutyric acid receptor-associated protein-like 2, GABA(A) receptor-associated protein-like 2, Ganglioside expression factor 2, GEF-2, General protein transport factor p16, Golgi-associated ATPase enhancer of 16 kDa, GATE-16, MAP1 light chain 3-related protein, GABARAPL2, FLC3A, GEF2

Target/Specificity
The synthetic peptide sequence is selected from aa 71~82 of HUMAN GABARAPL2

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GABARAPL2 (GATE16) Blocking Peptide (P71) - Protein Information

Name GABARAPL2

GABARAPL2 (GATE16) Blocking Peptide (P71) - Background

Membrane proteins located on vesicles (v-SNAREs) and on the target membrane (t-SNAREs) mediate specific recognition and, possibly, fusion between a transport vesicle and its target membrane. The activity of SNARE molecules is regulated by several soluble cytosolic proteins. We have cloned a bovine brain cDNA encoding a conserved 117 amino acid polypeptide, denoted Golgi-associated ATPase Enhancer of 16 kDa (GATE-16), that functions as a soluble transport factor. GATE-16 interacts with N-ethylmaleimidesensitive factor (NSF) and significantly stimulates its ATPase activity. It also interacts with the Golgi v-SNARE GOS-28 in an NSF-dependent manner. We propose that GATE-16 modulates intra-Golgi transport through coupling between NSF activity and SNAREs activation.

GABARAPL2 (GATE16) Blocking Peptide (P71) - References

Sou,Y.S., J. Biol. Chem. 281 (6), 3017-3024 (2006)
Mehrle,A., Nucleic Acids Res. 34 (DATABASE ISSUE), D415-D418 (2006)
Wiemann,S., Genome Res. 14 (10B), 2136-2144 (2004)
Sagiv,Y., EMBO J. 19 (7), 1494-1504 (2000)

Synonyms FLC3A, GEF2

Function
Ubiquitin-like modifier involved in intra-Golgi traffic (By similarity). Modulates intra-Golgi transport through coupling between NSF activity and SNAREs activation (By similarity). It first stimulates the ATPase activity of NSF which in turn stimulates the association with GOSR1 (By similarity). Involved in autophagy (PubMed:20418806, PubMed:23209295). Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production (PubMed:20418806, PubMed:23209295). Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation (PubMed:20418806, PubMed:23209295).

Cellular Location
Cytoplasmic vesicle, autophagosome. Endoplasmic reticulum membrane. Golgi apparatus {ECO:0000250|UniProtKB:P60519}

Tissue Location
Ubiquitous. Expressed at high levels in the brain, heart, prostate, ovary, spleen and skeletal muscle. Expressed at very low levels in lung, thymus and small intestine

GABARAPL2 (GATE16) Blocking Peptide (P71) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides