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ITM2B Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP13163b

Specification

ITM2B Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9Y287

ITM2B Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 9445

Other Names
Integral membrane protein 2B, Immature BRI2, imBRI2, Protein E25B, Transmembrane protein BRI, Bri, BRI2, membrane form, Mature BRI2, mBRI2, BRI2 intracellular domain, BRI2 ICD, BRI2C, soluble form, Bri23 peptide, Bri2-23, ABri23, C-terminal peptide, P23 peptide, ITM2B, BRI, BRI2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13163b was selected from the C-term region of ITM2B. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

ITM2B Antibody (C-term) Blocking Peptide - Protein Information

Name ITM2B

Synonyms BRI, BRI2

Function
Plays a regulatory role in the processing of the amyloid-beta A4 precursor protein (APP) and acts as an inhibitor of the amyloid-beta peptide aggregation and fibrils deposition. Plays a role in the induction of neurite outgrowth. Functions as a protease inhibitor by blocking access of secretases to APP cleavage sites. Bri23 peptide prevents aggregation of APP amyloid-beta protein 42 into toxic oligomers.

Cellular Location
[Integral membrane protein 2B]: Golgi apparatus membrane; Single-pass type II membrane protein Note=Immature BRI2 (imBRI2) is cleaved by furin in the Golgi into mBRI2 and a Bri23

peptide. mBRI2 is transported to the plasma membrane and Bri23 peptide is secreted [Bri23 peptide]: Secreted. Note=Detected in the cerebral spinal fluid (CSF).

Tissue Location
Ubiquitous. Expressed in brain.

ITM2B Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ITM2B Antibody (C-term) Blocking Peptide - Images

ITM2B Antibody (C-term) Blocking Peptide - Background

Amyloid precursor proteins are processed by beta-secretaseand gamma-secretase to produce beta-amyloid peptides which form thecharacteristic plaques of Alzheimer disease. This gene encodes atransmembrane protein which is processed at the C-terminus by furinor furin-like proteases to produce a small secreted peptide whichinhibits the deposition of beta-amyloid. Mutations which result inextension of the C-terminal end of the encoded protein, therebyincreasing the size of the secreted peptide, are associated withtwo neurogenerative diseases, familial British dementia andfamilial Danish dementia.

ITM2B Antibody (C-term) Blocking Peptide - References

Peng, S., et al. Biochem. Biophys. Res. Commun. 393(3):356-361(2010)Matsuda, S., et al. J. Biol. Chem. 284(23):15815-15825(2009)Matsuda, S., et al. Mol Neurodegener 4, 41 (2009) :Tsachaki, M., et al. Biotechnol J 3(12):1548-1554(2008)Kim, J., et al. J. Neurosci. 28(23):6030-6036(2008)