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LGMN Blocking Peptide (N-term)

Synthetic peptide
Catalog # BP19953a

Specification

LGMN Blocking Peptide (N-term) - Product Information

Primary Accession	Q99538
Other Accession	Q4R4T8, NP_005597.3

LGMN Blocking Peptide (N-term) - Additional Information

Gene ID 5641

Other Names
Legumain, Asparaginyl endopeptidase, Protease, cysteine 1, LGMN, PRSC1

Target/Specificity
The synthetic peptide sequence is selected from aa 98-112 of HUMAN LGMN

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.

LGMN Blocking Peptide (N-term) - Protein Information

Name LGMN {ECO:0000303|PubMed:30425301, ECO:0000312|HGNC:HGNC:9472}

Function
Has a strict specificity for hydrolysis of asparaginyl bonds (PubMed:23776206). Can also cleave aspartyl bonds slowly, especially under acidic conditions (PubMed:23776206). Involved in the processing of proteins for MHC class II antigen presentation in the lysosomal/endosomal system (PubMed:9872320). Also involved in MHC class I antigen presentation in cross-presenting dendritic cells by mediating cleavage and maturation of Perforin-2 (MPEG1), thereby promoting antigen translocation in the cytosol (By similarity). Required for normal lysosomal protein degradation in renal proximal tubules (By similarity). Required for normal degradation of internalized EGFR (By similarity). Plays a role in the regulation of cell proliferation via its role in EGFR degradation (By similarity).

Cellular Location

Lysosome.

Tissue Location
Ubiquitous. Particularly abundant in kidney, heart and placenta.

LGMN Blocking Peptide (N-term) - Protocols

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

- Blocking Peptides

LGMN Blocking Peptide (N-term) - Images

LGMN Blocking Peptide (N-term) - Background

This gene encodes a cysteine protease that has a strict specificity for hydrolysis of asparaginyl bonds. This enzyme may be involved in the processing of bacterial peptides and endogenous proteins for MHC class II presentation in the lysosomal/endosomal systems. Enzyme activation is triggered by acidic pH and appears to be autocatalytic. Protein expression occurs after monocytes differentiate into dendritic cells. A fully mature, active enzyme is produced following lipopolysaccharide expression in mature dendritic cells. Overexpression of this gene may be associated with the majority of solid tumor types. This gene has a pseudogene on chromosome 13. Several alternatively spliced transcript variants have been described, but the biological validity of only two has been determined. These two variants encode the same isoform.

LGMN Blocking Peptide (N-term) - References

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Oh, J.H., et al. Mamm. Genome 16(12):942-954(2005)
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