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LGMN Rabbit mAb

Catalog # AP75671

Product Information

Application	WB
Primary Accession	Q99538
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	49411

Additional Information

Gene ID	5641
Other Names	LGMN
Dilution	WB~~1:2000-1:5000
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

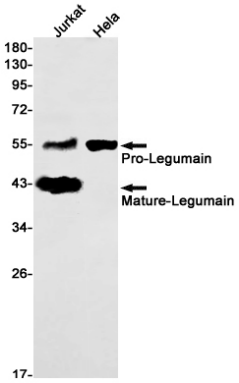
Protein Information

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.

Background

LGMN (Legumain), also known as asparaginyl endopeptidase or AEP, is a broadly expressed lysosomal cysteine endopeptidase that belongs to peptidase family C13 and specifcally hydrolyzes substrate asparaginyl bonds (PMID: 9065484). LGMN directly regulates diverse physiological and pathological processes by remodeling tissue-specific targets (PMID: 25205715, 21292981, 18820679). In addition, LGMN indirectly contributes to atherosclerotic plaque instability through activation of cathepsin L in the arterial ECM (PMID: 19671471, 18377911). LGMN is secreted as inactive prolegumain (56 kDa) and processed into enzymatically active 46 and 36 kDa forms, as well as a 17 kDa enzymatically inactive C-terminal fragment (PMID: 28162997, PMID: 19671471).

Images



Western blot analysis of Legumain in Jurkat, Hela lysates using Legumain antibody.