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GZMK Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21412a

Product Information

Application	WB, E
Primary Accession	P49863
Reactivity	Human, Mouse
Predicted	Bovine, Canine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52998
Calculated MW	28882

Additional Information

Gene ID	3003
Other Names	Granzyme K, 3421-, Fragmentin-3, Granzyme-3, NK-tryptase-2, NK-Tryp-2, GZMK, TRYP2
Target/Specificity	This GZMK antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 87-121 amino acids from the human region of human GZMK.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GZMK Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GZMK {ECO:0000303|PubMed:39914456, ECO:0000312|HGNC:HGNC:4711}
Function	Serine protease that initiates the GZMK pathway of the complement system, a cascade of proteins directly activated by CD8(+) T-cells that leads to phagocytosis and breakdown of pathogens and signaling that strengthens the adaptive immune system (PubMed:3262682, PubMed:39814882,

PubMed:39914456). GZMK is specifically secreted by CD8(+) T-cells and mediates both recognition and initiation steps of GZMK complement pathway (PubMed:39914456). First acts as a pattern recognition receptor, which specifically recognizes and binds heparan sulfate glycosaminoglycans on the pathogen surface to drive opsonization (PubMed:39914456). It then initiates the complement pathway cascade by catalyzing cleavage and activation of C2 and C4, the next components of the complement pathway (PubMed:39814882, PubMed:39914456). GZMK-mediated complement activation is an important contributor to tissue inflammation (PubMed:24711407, PubMed:33271118, PubMed:35704599, PubMed:39614076, PubMed:39814882, PubMed:39914456). Also able to cleave and activate F2R/PAR1 and PAR2/F2RL1, possibly promoting interleukin release (PubMed:21760880, PubMed:26936634, PubMed:35881628). May also regulate apoptosis by catalyzing cleavage and activation of BID, thereby promoting cytochrome C release from mitochrondria (PubMed:17308307).

Cellular Location

Secreted. Cell surface. Cytoplasmic granule. Note=Constitutively secreted by CD8(+) T-cells in the absence of TCR stimulation (PubMed:39914456) Specifically binds heparan sulfate glycosaminoglycans on the surface of pathogens (PubMed:39914456).

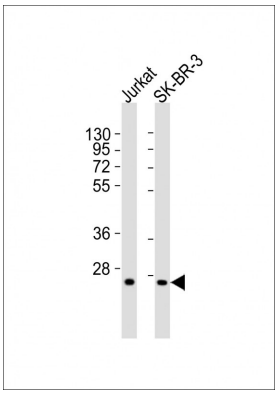
Tissue Location

Specifically expressed by CD8(+) T-cells.

References

Przetak M.M.,et al.FEBS Lett. 364:268-271(1995).
Sayers T.J.,et al.J. Leukoc. Biol. 59:763-768(1996).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Hameed A.,et al.J. Immunol. 141:3142-3147(1988).

Images



All lanes : Anti-GZMK Antibody (N-Term) at 1:2000 dilution Lane 1: Jurkat whole cell lysates Lane 2: SK-BR-3 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 29 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.