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TRIM5 gamma Rabbit pAb

Catalog # AP98396

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9C035
Other Accession	Q9C035
Reactivity	Rat
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56338
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TRIM5 gamma
Epitope Specificity	301-360/493
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the TRIM/RBCC family.Contains 1 B box-type zinc finger.Contains 1 B30.2/SPRY domain.Contains 1 RING-type zinc finger.
SUBUNIT	Isoform Alpha forms homotrimers, and may interact with retroviral CA protein. Isoform Delta interacts with BTBD1 and BTBD2.
Post-translational modifications	Ubiquitinates itself in a RING finger- and UBE2D2-dependent manner (in vitro).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	TRIM5a is a 493 amino acid member of the large tripartite motif protein (TRIM) family. TRIM proteins are composed of three zinc-binding domains, a RING, a B-box 2 and a coiled-coil domain, and they use homomultimerization to identify different cell compartments. Some TRIM proteins, such as TRIM5? also possess a carboxy-terminal B30.2 (SPRY) domain and localize to the cytoplasm. TRIM5?mediates innate intracellular retroviral resistance, which is dependent on its carboxy-terminal domain. The three variable regions of the B30.2 domain form loops on one side of the B30.2 core structure of TRIM5?which may form a binding surface for the virus. TRIM5?trimerization plays a major role in its affinity for the retroviral capsid, and in its ability to inhibit virus infection. The linker region between the coiled-coil and B30.2 domains of TRIM5?is required for this trimerization. TRIM5?blocks infection after the virus has entered the cell.

Additional Information

Gene ID	85363
Other Names	RNF88; TRIM5alpha; TRIM5_HUMAN; TRIM5; RING finger protein 88; RING-type E3 ubiquitin transferase TRIM5; 2.3.2.27; tripartite motif containing 5; tripartite motif-containing 5; tripartite motif protein TRIM5; tripartite motif

	protein TRIM
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TRIM5
Synonyms	RNF88
Function	Capsid-specific restriction factor that prevents infection from non-host-adapted retroviruses. Blocks viral replication early in the life cycle, after viral entry but before reverse transcription. In addition to acting as a capsid-specific restriction factor, also acts as a pattern recognition receptor that activates innate immune signaling in response to the retroviral capsid lattice. Binding to the viral capsid triggers its E3 ubiquitin ligase activity, and in concert with the heterodimeric ubiquitin conjugating enzyme complex UBE2V1- UBE2N (also known as UBC13-UEV1A complex) generates 'Lys-63'-linked polyubiquitin chains, which in turn are catalysts in the autophosphorylation of the MAP3K7/TAK1 complex (includes TAK1, TAB2, and TAB3). Activation of the MAP3K7/TAK1 complex by autophosphorylation results in the induction and expression of NF-kappa-B and MAPK- responsive inflammatory genes, thereby leading to an innate immune response in the infected cell. Restricts infection by N-tropic murine leukemia virus (N-MLV), equine infectious anemia virus (EIAV), simian immunodeficiency virus of macaques (SIVmac), feline immunodeficiency virus (FIV), and bovine immunodeficiency virus (BIV) (PubMed:17156811). Plays a role in regulating autophagy through activation of autophagy regulator BECN1 by causing its dissociation from its inhibitors BCL2 and TAB2 (PubMed:25127057). Also plays a role in autophagy by acting as a selective autophagy receptor which recognizes and targets HIV-1 capsid protein p24 for autophagic destruction (PubMed:25127057).
Cellular Location	Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q0PF16}. Note=Predominantly localizes in cytoplasmic bodies (PubMed:12878161, PubMed:20357094). Localization may be influenced by the coexpression of other TRIM proteins, hence partial nuclear localization is observed in the presence of TRIM22 or TRIM27 (By similarity). In cytoplasmic bodies, colocalizes with proteasomal subunits and SQSTM1 (By similarity). {ECO:0000250|UniProtKB:Q0PF16, ECO:0000269|PubMed:12878161, ECO:0000269|PubMed:20357094, ECO:0000269|PubMed:25127057}

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