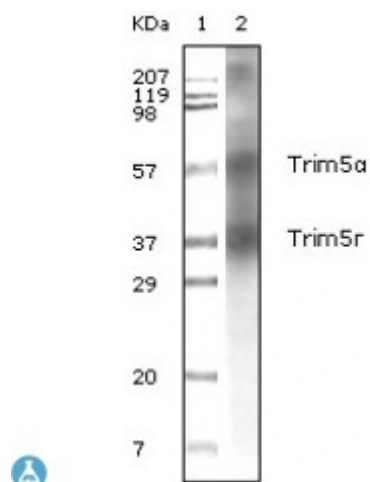


Anti-TRIM alpha antibody



Description	Mouse monoclonal to TRIM5alpha.
Model	STJ98429
Host	Mouse
Reactivity	Human
Applications	ELISA, IHC, WB
Immunogen	Purified recombinant fragment of human TRIM5alpha expressed in E. Coli.
Gene ID	85363
Gene Symbol	TRIM5
Dilution range	WB 1:500-1:2000IHC 1:200-1:1000ELISA 1:10000
Specificity	TRIM5alpha Monoclonal Antibody detects endogenous levels of TRIM5alpha protein.
Purification	Affinity purification
Clone ID	3B11H2
Note	For Research Use Only (RUO).
Protein Name	Tripartite motif-containing protein 5 RING finger protein 88 RING-type E3 ubiquitin transferase TRIM5
Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1

Formulation	Ascitic fluid containing 0.03% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:16276OMIM:608487
Alternative Names	Tripartite motif-containing protein 5 RING finger protein 88 RING-type E3 ubiquitin transferase TRIM5
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) . Plays a role in regulating autophagy through activation of autophagy regulator BECN1 by causing its dissociation from its inhibitors BCL2 and TAB2 . 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 .
Sequence and Domain Family	The B box-type zinc finger domain and the coiled-coil domain contribute to the higher and low order multimerization respectively which is essential for restriction activity . The coiled coil domain is important for higher order multimerization by promoting the initial dimerization . The B30.2/SPRY domain acts as a capsid recognition domain. Polymorphisms in this domain explain the observed species-specific differences among orthologs . The RING-type zinc finger domain confers E3 ubiquitin ligase activity and is essential for retrovirus restriction activity, autoubiquitination and higher-order multimerization.
Cellular Localization	Cytoplasm Cytoplasm, P-body Nucleus. Predominantly cytoplasmic, and is only occasionally and partially localized in the nucleus . Closely associates with proteasomal subunits in cytoplasmic bodies . Colocalizes with SQSTM1 in cytoplasmic bodies .
Post-translational Modifications	Degraded in a proteasome-independent fashion in the absence of viral infection but in a proteasome-dependent fashion following exposure to restriction sensitive virus.; Autoubiquitinated in a RING finger- and UBE2D2-dependent manner. Monoubiquitinated by TRIM21. Deubiquitinated by Yersinia YopJ. Ubiquitination may not lead to proteasomal degradation.