TRIM5 Protein, Human (His)

Cat. No.:	HY-P71385
Synonyms:	Tripartite motif-containing protein 5; RING finger protein 88; TRIM5; RNF88
Species:	Human
Source:	E. coli
Accession:	Q9C035 (M1-Q248)
Gene ID:	85363
Molecular Weight:	Approximately 33.0 kDa

PROPERTIES

AA Sequence	M A S G I L V N V K E E V T C P I C L E L L T Q P L S L D C G H S F C Q A C L T A N H K K S M L D K G E S S C P V C R I S Y Q P E N I R P N R H V A N I V E K L R E V K L S P E G Q K V D H C A R H G E K L L L F C Q E D G K V I C W L C E R S Q E H R G H H T F L T E E V A R E Y Q V K L Q A A L E M L R Q K Q Q E A E E L E A D I R E E K A S W K T Q I Q Y D K T N V L A D F E Q L R D I L D W E E S N E L Q N L E K E E E D I L K S L T N S E T E M V Q Q T Q S L R E L I S D L E H R L Q G S V M E L L Q
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	TRIM5 is a capsid-specific restriction factor that effectively prevents infection by non-host-adapted retroviruses. Its antiviral activity occurs early in the viral life cycle, specifically after viral entry but before reverse transcription. In addition to its role as a capsid-specific restriction factor, TRIM5 acts as a pattern recognition receptor, activating innate immune signaling in response to the retroviral capsid lattice. Upon binding to the viral capsid, TRIM5 triggers its E3 ubiquitin ligase activity.

Teaming up with the UBE2V1-UBE2N complex, it generates 'Lys-63'-linked polyubiquitin chains, facilitating the autophosphorylation of the MAP3K7/TAK1 complex. The activated MAP3K7/TAK1 complex induces NF-kappa-B and MAPK-responsive inflammatory genes, instigating an innate immune response in the infected cell. TRIM5's versatility extends to restricting infections by various retroviruses, including N-tropic murine leukemia virus, equine infectious anemia virus, simian immunodeficiency virus of macaques, feline immunodeficiency virus, and bovine immunodeficiency virus. Moreover, TRIM5 plays a crucial role in regulating autophagy by activating autophagy regulator BECN1 and acting as a selective autophagy receptor, targeting HIV-1 capsid protein p24 for autophagic degradation.

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