

TRIM5 Protein, Human (N-His)

Cat. No.:	HY-P71385A
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 30 kDa

PROPERTIES

AA Sequence	<pre> 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 </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, 200 mM arginine, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

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
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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.

Caution: Product has not been fully validated for medical applications. For research use only.

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