BNP Protein, Human

Cat. No.:	HY-P72805
Synonyms:	Natriuretic peptides B; NPPB; BNP
Species:	Human
Source:	E. coli
Accession:	P16860 (S103-H134)
Gene ID:	4879
Molecular Weight:	Approximately 3.5 kDa

PROPERTIES

AA Sequence	S P K M V Q G S G C F G R K M D R I S S S S G L G C K V L R R H
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg; determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. 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 protein serves as a capsid-specific restriction factor, impeding the infection of non-host-adapted retroviruses by blocking viral replication early in the viral life cycle, specifically after viral entry but before reverse transcription. Beyond its role as a capsid-specific restriction factor, TRIM5 also functions 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, collaborating with the UBE2V1-UBE2N complex to generate 'Lys-63'-linked polyubiquitin chains. This ubiquitination process leads to the autophosphorylation of the MAP3K7/TAK1 complex, resulting in the induction and expression of NF-kappa-B and MAPK-responsive inflammatory genes, ultimately initiating an innate immune response in the infected cell. TRIM5's restrictive capabilities extend to various retroviruses, including 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). Additionally, TRIM5 plays a crucial role in regulating autophagy by activating the autophagy regulator BECN1, causing its dissociation from inhibitors BCL2 and TAB2. Furthermore, TRIM5 acts as a selective

	autophagy receptor, recognizing and targeting HIV-1 capsid protein p24 for autophagic degradation.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA