CD63 Protein, Human (HEK293, His)

Cat. No.:	HY-P72715
Synonyms:	CD63 antigen; LAMP-3; Tspan-30; CD63; MLA1; TSPAN30
Species:	Human
Source:	HEK293
Accession:	P08962 (A103-V203)
Gene ID:	967
Molecular Weight:	20-30 kDa

PROPERTIES

AA Sequence	A G Y V F R D K V M S E F N N N F R Q Q M E N Y P K N N H T A S I L D R M Q A D F K C C G A A N Y T D W E K I P S M S K N R V P D S C C I N V T V G C G I N F N E K A I H K E G C V E K I G G W L R K N V
Biological Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human BST-2/Tetherin is immobilized at 2.5 μg/mL (100 μL/well). The ED_{50} for this effect is 2.134 μg/mL corresponding to a specific activity is 4.69×10^3 Unit/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, 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	The CD63 Protein functions as a cell surface receptor for TIMP1, contributing to the activation of cellular signaling cascades. It plays a pivotal role in the activation of ITGB1 and subsequent integrin signaling, leading to the activation of AKT, FAK/PTK2, and MAP kinases. This multifaceted protein is involved in diverse cellular processes, including promoting cell survival, orchestrating the reorganization of the actin cytoskeleton, enhancing cell adhesion, spreading, and migration through its involvement in AKT and FAK/PTK2 activation. Furthermore, CD63 participates in VEGFA signaling by regulating the internalization of KDR/VEGFR2 and influences intracellular vesicular transport processes. Its indispensable role in the

trafficking of the PMEL luminal domain is crucial for the development and maturation of melanocytes. Additionally, CD63 contributes to leukocyte adhesion onto endothelial cells by regulating SELP trafficking. While it may play a role in mast cell degranulation in response to Ms4a2/FceRI stimulation, it appears to be dispensable for degranulation in response to other stimuli. CD63 interacts with TIMP1 and ITGB1, recruiting TIMP1 to ITGB1 complexes, and forms complexes with CD9 and ITGB3. It also interacts with PMEL and KDR/VEGFR2, the latter being essential for recruiting KDR to ITGB1 complexes, further emphasizing its intricate role in cellular processes.

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