TIM-4/TIMD-4 Protein, Human (Biotinylated, HEK293, His)

Cat. No.:	HY-P75552
Synonyms:	T-cell immunoglobulin and mucin domain-containing protein 4; TIMD4; TIM4
Species:	Human
Source:	HEK293
Accession:	Q96H15 (M1-L315)
Gene ID:	91937
Molecular Weight:	Approximately 32.7 kDa

PROPERTIES

AA Sequence	M S K E P L I L W L M I E F W W L Y L T P V T S E T V V T E V L G H R V T L P C L Y S S W S H N S N S M C W G K D Q C P Y S G C K E A L I R T D G M R V T S R K S A K Y R L Q G T I P R G D V S L T I L N P S E S D S G V Y C C R I E V P G W F N D V K I N V R L N L Q R A S T T T H R T A T T T T R R T T T T S P T T T R Q M T T T P A A L P T T V V T T P D L T T G T P L Q M T T I A V F T T A N T C L S L T P S T L P E E A T G L L T P E P S K E G P I L T A E S E T V L P S D S W S S V E S T S A D T V L L T S K E S K V W D L P S T S H V S M W K T S D S V S S P Q P G A S D T A V P E Q N K T T K T G Q M D G I P M S M K N E M P I S Q L
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
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.
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	TIM-4/TIMD-4 Protein is a versatile phosphatidylserine receptor that plays multiple roles in immune response. It is involved in the phagocytosis of apoptotic cells and regulates T-cell activation in a bimodal manner, inhibiting naive T-cell activation while promoting the proliferation of activated T-cells through AKT1 and ERK1/2 phosphorylation and subsequent signaling pathways. TIM-4/TIMD-4 also participates in efferocytosis, the process of removing apoptotic cells by phagocytes, by

directly binding to phosphatidylserine on apoptotic cells. It additionally promotes autophagy by suppressing NLRP3 inflammasome activity via the activation of the LKB1/PRKAA1 pathway in a phosphatidylserine-dependent mechanism. In the context of microbial infection, TIM-4/TIMD-4 plays a positive role in the exosome-mediated trafficking of HIV-1 virus and its entry into immune cells.

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

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