TIM-1/KIM-1/HAVCR Protein, Rhesus Macaque (HEK293)

Cat. No.:	HY-P74510
Synonyms:	Hepatitis A virus cellular receptor 1 homolog; HAVcr-1; KIM-1; TIM-1
Species:	Rhesus Macaque
Source:	HEK293
Accession:	BAJ61041 (D20-G339)
Gene ID:	715333
Molecular Weight:	Approximately 32.4 kDa

PROPERTIES

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-1, a key member and costimulatory molecule in the T cell immunoglobulin mucin (TIM) family, is expressed on the surface of T cells. TIM-1 gene mutations in human and mouse are associated with some allergic diseases. Abnormal expression of TIM-1 is related to some autoimmune diseases. TIM-1 is mainly expressed on the surfaces of CD4+ T cells, CD8+ T cells, NK cells, macrophages, DCs, B cells, and mast cells. Moreover, it is also found that TIM-1 is expressed in lymphoid tissues and confirmed that TIM-1 can promote the production of cytokines and enhance the antigen induced immune response of T cells. TIM-1, a new costimulatory candidate molecule for tumor treatment, not only directly enhances the antitumor effect of CD8+ T cells and NK cells but also changes the tumor microenvironment to induce more effective antitumor immune response. Type 1 immune response of TIM-1-mediated T cell activation is associated with tumor immunity through transcription factor T-bet/Eomes and the PI3K signal pathway. As a target molecule, it may have a good application prospect in clinical cancer research. In addition, agonistic anti-TIM-1 monoclonal antibody or other ligands can enhance the function of T cells, increase CD8+ T cells and NK cells, reduce MDSC in tumor tissues, and inhibit tumor growth [1].

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

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