Recombinant Protein Technical Manual

Recombinant Mouse TIM4/TIMD4 Protein (His Tag)

RPES2851

Product Data:

Product SKU: RPES2851

Size: 50µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_848874.3

Protein Information:

Molecular Mass:	29.3 kDa
AP Molecular Mass:	60-70 kDa
Tag:	C-His
Bio-activity:	
Purity:	> 94 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile PBS, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	B430010N18Rik;TIM-4;Tim4

Immunogen Information:

Sequence: Met 1-Thr 279

Background:

A type I transmembrane protein called TIM4 (T-cell immunoglobulin- and mucin-domain-containing molecule; also known as TIMD4), which belongs to the immunoglobulin superfamily and TIM family. TIM4 is involved in regulating T-cell proliferation and lymphotoxin signaling. It is a ligand for HAVCR1/TIMD1. Recent reports indicate that dendritic cell (DC)-derived T-cell immunoglobulin and mucin domain molecule (TIM)-4, which is expressed on dendritic cells and macrophages, plays an important role in the initiation of T(H)2 polarization. TIM4 bound apoptotic cells by recognizing phosphatidylserine via its immunoglobulin domain. The expression of TIM4 in fibroblasts enhanced their ability to engulf apoptotic cells. TIM4 is phosphatidylserine receptor for the engulfment of apoptotic cells, and may also be involved in intercellular signalling in which exosomes are involved. Modulation of TIM4 production in dendritic cells (DCs) represents a novel therapeutic approach for the treatment of peanut allergy. The interaction of TIM1/TIM4 played a critical role in sustaining the polarization status of Th2 cells in allergic rhinitis (AR) patients. Cross-linking FcgammaRI by antigen/IgG complexes increased the production of TIM4 by dendritic cells via upregulating tumor necrosis factor-alpha in DCs. Specific immunotherapy (SIT) suppresses the skewed Th2 responses via disrupting the interaction of TIM1/TIM4 in antigen-specific Th2 cells.