

## Active Recombinant Cynomolgus Monkey TIMD4 protein, Fc-tagged

**Cat. No.** TIMD4-198C    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Product Overview</b> | Recombinant Cynomolgus Monkey TIMD4(Met22-Pro142) fused with Fc region of Human IgG1 at C-terminal was expressed in HEK293.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Cynomolgus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ProteinLength</b>    | 22-142 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | <p>TIM-4 (T cell; immunoglobulin; mucin-4), also known as SMUCKLER, is an approximately 60 kDa member of the TIM family of immune regulating proteins. TIMs are type I transmembrane proteins with one Ig-like V domain and one Ser/Thr-rich mucin domain. Sequence alignment with the human TIM-4 shows that mature cynomolgus monkey TIM-4 has a predicted 280 aa extracellular domain (ECD), a 21 aa transmembrane segment and a 43 aa cytoplasmic tail. Within the ECD, cynomolgus monkey TIM-4 shares 87 % and 48 % aa sequence identity with human and mouse TIM-4, respectively. Structurally, TIM-4 is distinguished from other TIMs by the presence of an RGD motif in its Ig domain and the lack of a site for tyrosine phosphorylation in its cytoplasmic tail. The mucin domain in TIM-4 is larger than in TIM-1 or TIM-3. TIM-4 is expressed by macrophages and mature dendritic cells but not by lymphocytes. TIM-4 binds specifically to TIM-1 which is also the cellular receptor for the hepatitis A virus, and has been implicated in the development of asthma. Among hematopoietic</p> |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

cells, TIM-1 is expressed on activated B and T cells, preferentially in the Th2 subset of CD4+ T cells. The interaction of TIM-4 with TIM-1 induces co-stimulatory and hyperproliferative signals in T cells.

**Predicted N Terminal** Glu25

**Form** Lyophilized from a 0.2 µm filtered solution in NaH<sub>2</sub>PO<sub>4</sub>, NaCl and EDTA.

**Bio-activity** Measured by its ability to inhibit anti-CD3-induced proliferation of stimulated human T cells. The ED50 for this effect is 0.2-1.2 µg/mL.

**Molecular Mass** Predicted Molecular Mass: 57 kDa  
SDS-PAGE: 95-112 kDa, reducing conditions

**Endotoxin** <0.1 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
12 months from date of receipt, -20 to -70 centigrade as supplied.  
1 month, 2 to 8 centigrade under sterile conditions after reconstitution.  
3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

**Reconstitution** Reconstitute at 500 µg/mL in PBS.

## GENE INFORMATION

**Gene Name** TIMD4 T-cell immunoglobulin and mucin domain containing 4 [ *Macaca fascicularis* ]

**Official Symbol** TIMD4

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|-----------------|------------------------------------------------------------|
| <b>Synonyms</b> | TIMD4; T-cell immunoglobulin and mucin domain containing 4 |
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|----------------|-----------|
| <b>Gene ID</b> | 102140672 |
|----------------|-----------|

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