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## Recombinant Mouse TIM-3 Fc-Fusion Protein

Cat No: Pr00228-1.9

### Product Summary

**Description:** Recombinant mouse TIM-3 Fc-Fusion Protein manufactured using [AbAb's Recombinant Platform](#)

**Protein:** Mouse TIM-3

**Fc domain:** Mouse IgG1

**Structure / Form:** Disulfide-linked homodimer

**Species:** Mouse

**Construct Design Note(s):** The extracellular domain of TIM-3 has been fused to the Fc domain of mouse IgG1.

**Host:** HEK293

**UniProt Accession Number:** Q8TDQ0

**Alternative Description:** Hepatitis A virus cellular receptor 2; HAVcr-2; T-cell immunoglobulin and mucin domain-containing protein 3; TIMD-3; T-cell immunoglobulin mucin receptor 3; TIM-3; T-cell membrane protein 3; TIM-3-Ig; TIM-3-Fc chimera; TIM-3 (Fc tag)

**Published Application(s):**

**Tested Applications(s):**

**Activity:** Cell surface receptor implicated in modulating innate and adaptive immune responses. Generally accepted to have an inhibiting function. Reports on stimulating functions suggest that the activity may be influenced by the cellular context and/or the respective ligand [PMID:24825777]. Regulates macrophage activation [PMID:11823861]. Inhibits T-helper type 1 lymphocyte (Th1)-mediated auto- and alloimmune responses and promotes immunological tolerance [PMID:14556005]. In CD8+ cells attenuates TCR-induced signaling, specifically by blocking NF-kappaB and NFAT promoter activities resulting in the loss of IL-2 secretion. The function may implicate its association with LCK proposed to impair phosphorylation of TCR subunits, and/or LGALS9-dependent recruitment of PTPRC to the immunological synapse [PMID:24337741, PMID:26492563]. In contrast, shown to activate TCR-induced signaling in T-cells probably implicating ZAP70, LCP2, LCK and FYN (By similarity). Expressed on Treg cells can inhibit Th17 cell responses [PMID:24838857]. Receptor for LGALS9 [PMID:16286920, PMID:24337741]. Binding to LGALS9 is believed to result in suppression of T-cell responses; the resulting apoptosis of antigen-specific cells may implicate HAVCR2 phosphorylation and disruption of its association with BAG6. Binding to LGALS9 is proposed to be involved in innate immune response to intracellular pathogens. Expressed on Th1 cells interacts with LGALS9 expressed on Mycobacterium tuberculosis-infected macrophages to stimulate antibactericidal activity including IL-1 beta secretion and to restrict intracellular bacterial growth (By similarity). However, the function as receptor for LGALS9 has been challenged [PMID:23555261]. Also reported to enhance CD8+ T-cell responses to an acute infection such as by Listeria monocytogenes (By similarity). Receptor for phosphatidylserine (PtSer); PtSer-binding is calcium-dependent. May recognize PtSer on apoptotic cells leading to their phagocytosis. Mediates the engulfment of apoptotic cells by dendritic cells. Expressed on T-cells, promotes conjugation but not engulfment of apoptotic cells. Expressed on dendritic cells (DCs) positively regulates innate immune response and in synergy with Toll-like receptors promotes

**Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals**

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secretion of TNF-alpha. In tumor-infiltrating DCs suppresses nucleic acid-mediated innate immune response by interaction with HMGB1 and interfering with nucleic acid-sensing and trafficking of nucleic acids to endosomes (By similarity). Expressed on natural killer (NK) cells acts as a coreceptor to enhance IFN-gamma production in response to LGALS9 [PMID:22323453]. In contrast, shown to suppress NK cell-mediated cytotoxicity [PMID:22383801]. Negatively regulates NK cell function in LPS-induced endotoxic shock (By similarity) [Uniprot].

## Product Form

**Purification:** IMAC purified

**Supplied in:** 0.1 mg size: PBS with preservative (0.02% Proclin 300), 1 mg size: PBS only.

**Endotoxin:** <1.0 EU/mg

**Shipping:** The product is shipped on blue ice. Upon receipt, store it immediately at the temperature recommended.

**Storage Recommendation:** Store at 4°C for up to 1 month. For longer term storage aliquot in small volumes and store at -20°C. Avoid repeated freeze-thaw cycles.

**SDS PAGE Purity:** >95%, as determined by SDS-PAGE and visualized by Coomassie Brilliant Blue.

### Fc-Fusion Sequence (monomer)

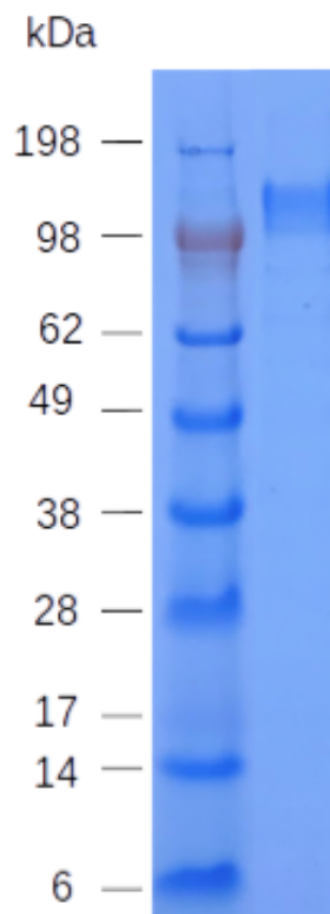
SLENAYVFEVGKNAYLPCSYTLSTPGALVPMCWGKGFPCWSQCTNELLRTDERNVTYQKSSRYQLKGDNLKGDVSLII  
KNVTLDDHGTCCRIQFPGLMNDKKLELKLDIKAAKVTPAQTAGDSTTASPRTLTERNGSETQTLVTLHNNNGTKIST  
WADEIKDSGETIRTAGGGGSVPRDQGCKPCICTVPEVSSVFIFPPKPKDVLITLTPKVTCVVVDISKDDPEVQFSWFVD  
DVEVHTAQTKPREEQINSTFRSVSELPIMHQDWLNGKEFKCRVNSAAFPAPIEKTISKTKGRPKAPQVYTIPPPKEQMA  
KDKVSLTCMITNFFPEDITVEWQWNGQPAENYKNTQPIMDTDGSYFVYSKLNQKSNWEAGNTFTCSVLHEGLHNNH  
TEKSLSHSPGKHHHHHH

Underlined amino acids sequence include a G4S linker and 6xHis epitope tag, respectively.

**Calculated Molecular weight (dimer):** 91704 Da

**Extinction coefficient:** 119900 (calculation performed as described by Pace *et al.* (1995), PMID: 8563639).

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**TIM-3 (Pr00228-1.9) SDS-PAGE.** Pr00228-1.9 under non-reducing conditions resolved by SDS-PAGE and stained using Coomassie-Blue.

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