

Overview

Synonyms	T Cell Immunoglobulin Mucin-3; TIM-3
Description	<p>T cell Ig- and mucin-domain-containing molecules (TIMs) are a family of transmembrane proteins expressed by various immune cells. TIM-3 is an inhibitory molecule that is induced following T cell activation. TIM-3 is expressed by exhausted T cells in the settings of chronic infection and cancer, and tumor-infiltrating T cells that co-express PD-1 and TIM-3 exhibit the most severe exhausted phenotype. Tumor-infiltrating dendritic cells also express TIM-3. TIM-3 expression on DCs was found to suppress innate immunity by reducing the immunogenicity of nucleic acids released by dying tumor cells. Research studies show that heterodimerization of TIM-3 with CEACAM-1 is critical for the inhibitory function of TIM-3, and co-blockade of TIM-3 and CEACAM-1 enhanced antitumor responses in a mouse model of colorectal cancer. Its binding to Galectin-9 induces a range of immunosuppressive functions which enhance immune tolerance and inhibit anti-tumor immunity. TIM-3 ligation attenuates CD8+ and Th1 cell responses and promotes the activity of Treg and myeloid derived suppressor cells. In addition, dendritic cell-expressed TIM-3 dampens inflammation by enabling the phagocytosis of apoptotic cells and the cross-presentation of apoptotic cell antigens.</p> <p>Recombinant Human TIM-3 Fc Chimera produced in HEK293 cells is a polypeptide chain containing 412 amino acids with the C-terminal human IgG1 Fc fragment. A fully biologically active molecule, rhTIM-3 has a molecular mass of 60-65 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.</p> <p>Recombinant Human EGF-R/ErbB1 Fc Chimera produced in <i>CHO</i> cells is a polypeptide chain containing 854 amino acids with the C-terminal human IgG1 Fc fragment. A fully biologically active molecule, rhEGF-R/ErbB1 has a molecular mass of 12-125 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.</p>
Accession No	Q8TDQ0
Source	HEK293
Biological Activity	<p>Activity1: Immobilized TIM-3 Fc Chimera, Human at 0.5µg/mL, the concentration of Anti-TIM3 mouse antibody (iXCells) that produces 50% optimal binding response is found to be approximately 5 ng/mL.</p> <p>Activity2: Immobilized Galectin-9, His, Human at 0.5µg/mL (100 µL/well) can bind TIM-3 Fc Chimera, Human with a linear range of 0.78-6.25 µg/mL.</p>
Sequence	<p>SEVEYRAEVGQNAYLPCFYTPAAPGNLVPVCWGKGACPV FECGNVVLRTDERDVNYWTSRYWLNDFRKGDVSLTIEN VTLADSGIYCCRIQIPGIMNDEKFNLKLVIKPAKVTPAP TRQRDFTAAPRMLTTRGHGPAETQTLGSLPDINLTQIS TLANELRDSRLANDLRDSGATIR</p>

Properties

Measured Molecular Weight	60-65 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by reducing SDS-PAGE.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 µg/ml.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant Human TIM-3 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human TIM-3 should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

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