Biotinylated Recombinant Human TREM-1 Fc Chimera Avi-tag

Catalog Number: AVI1278

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived human TREM-1 protein

Human TREM-1 (Ala21-Arg200) Accession # Q9NP99.1	IEGRMD	Human IgG_1 (Pro100-Lys330)	Avi-tag

N-terminus C-terminus

N-terminal Sequence Analysis	Ala21
Structure / Form	Disulfide-linked homodimer Biotinylated via Avi-tag
Predicted Molecular Mass	49 kDa

SPECIFICATIONS

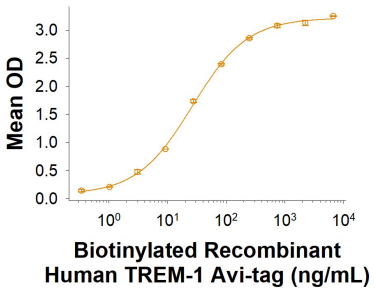
SDS-PAGE	60-78 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human PGLYRP1/PGRP-S Protein (Catalog # 2590-PGB) is immobilized at 1 µg/mL (100 µL well), Biotinylated Recombinant Human TREM-1 Fc Chimera Avi-tag (Catalog # AVI1278) binds with an ED_{50} of 15.0-150 ng/mL.
Endotoxin Level	<0.10 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.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

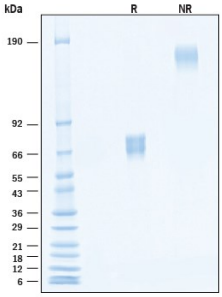
DATA

Binding Activity



Biotinylated Recombinant Human TREM-1 Fc Chimera Avi-tag Protein Binding Activity. Measured by its binding ability in a functional ELISA. When Recombinant Human PGLYRP1/PGRP-S Protein (Catalog # 2590-PGB) is immobilized at 1 µg/mL (100 µL well), Biotinylated Recombinant Human TREM-1 Fc Chimera Avi-tag Protein (Catalog # AVI1278) binds with an ED_{50} of 15.0-150 ng/mL.

SDS-PAGE



Biotinylated Recombinant Human TREM-1 Fc Chimera Avi-tag Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human TREM-1 Fc Chimera Avi-tag Protein (Catalog # AVI1278) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 60-78 kDa and 110-150 kDa, respectively.

bio-techne
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Biotinylated Recombinant Human TREM-1 Fc Chimera Avi-tag

Catalog Number: AVI1278

BACKGROUND

TREM-1 (Triggering Receptor Expressed on Myeloid cells) is a type I transmembrane protein having a single Ig-like domain. It associates with the adapter protein, DAP12, to deliver an activating signal. Several other TREM family members have been reported that are structurally similar but share less than 30% amino acid identity. TREM-1 is expressed on blood neutrophils and a subset of monocytes, and expression is up-regulated by bacterial LPS. The natural ligand for TREM-1 has not been identified. However, engagement of TREM-1 with an agonist monoclonal antibody leads to expression of IL-8, MCP-1 and TNF-α, suggesting that this receptor plays an important role in inflammatory responses. TREM-1 is expressed at high levels on neutrophils of patients with microbial sepsis and in mice with LPS-induced shock. Blockade of TREM-1 with a TREM-1/Fc fusion protein protected mice against LPS-induced shock. Human and mouse TREM-1 share approximately 42% amino acid sequence homology (1 - 3). Our Avi-tag Biotinylated human TREM-1 features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

References:

1. Bouchon, A. (2000) J. Immunol. **164**:4991.
2. Bouchon, A. (2001) Nature **410**:1103.
3. Nathan, C. and A. Ding (2001) Nature Med. **7**:530.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449