## DESCRIPTION

**Source**
Mouse myeloma cell line, NS0-derived

| Mouse TREM-1  (Ala21-Ser202) | SIEGRMD | Human IgG1  
Pro100-Lys330 |
|-----------------------------|---------|----------------|

**N-terminal Sequence Analysis**
Ala21

**Structure / Form**
Disulfide-linked homodimer

**Predicted Molecular Mass**
47 kDa (monomer)

## SPECIFICATIONS

**SDS-PAGE**
60-73 kDa, reducing conditions

**Activity**
Measured by its ability to block anti-TREM-1-induced TNF-α secretion by P388D1 mouse lymphoma cells. The \( ED_{50} \) for this effect is 2-8 ng/mL in the presence of 0.5-2 \( \mu \)g/mL of Goat Anti-Mouse TREM-1 (Catalog # AF1187).

**Endotoxin Level**
<0.10 EU per 1 \( \mu \)g of the protein by the LAL method.

**Purity**
>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

**Formulation**
Lyophilized from a 0.2 \( \mu \)m filtered solution in PBS. See Certificate of Analysis for details.

## PREPARATION AND STORAGE

**Reconstitution**
Reconstitute at 100 \( \mu \)g/mL in sterile 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.

## 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. Engagement of TREM-1 with a 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.

**References:**