

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TREM-1 in ELISAs and Western blots. In sandwich immunoassays, less than 0.2% cross-reactivity with recombinant human (rh) TREM-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse TREM-1 Ala21-Ser202 Accession # Q9JKE2
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse TREM-1 Fc Chimera (Catalog # 1187-TR)
Flow Cytometry	2.5 µg/10 ⁶ cells	Mouse blood GR-1 ⁺ granulocytes
Immunocytochemistry	5-15 µg/mL	Immersion fixed mouse splenocytes
Mouse TREM-1 Sandwich Immunoassay		Reagent
ELISA Capture	0.2-0.8 µg/mL	Mouse TREM-1 Antibody (Catalog # AF1187)
ELISA Detection Standard	0.1-0.4 µg/mL	Mouse TREM-1 Biotinylated Antibody (Catalog # BAF1187) Recombinant Mouse TREM-1 Fc Chimera (Catalog # 1187-TR)
Agonist Activity	Measured by its ability to stimulate TNF-α secretion by P388D1 mouse lymphoma cells. Bouchon, A. <i>et al.</i> (2001) <i>Nature</i> , 410 :1103 and Bouchon, A. <i>et al.</i> (2000) <i>J. Immunology</i> , 164 :4991. The ED ₅₀ for this effect is typically 1-3 µg/mL.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/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. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 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:

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.