

**DESCRIPTION**

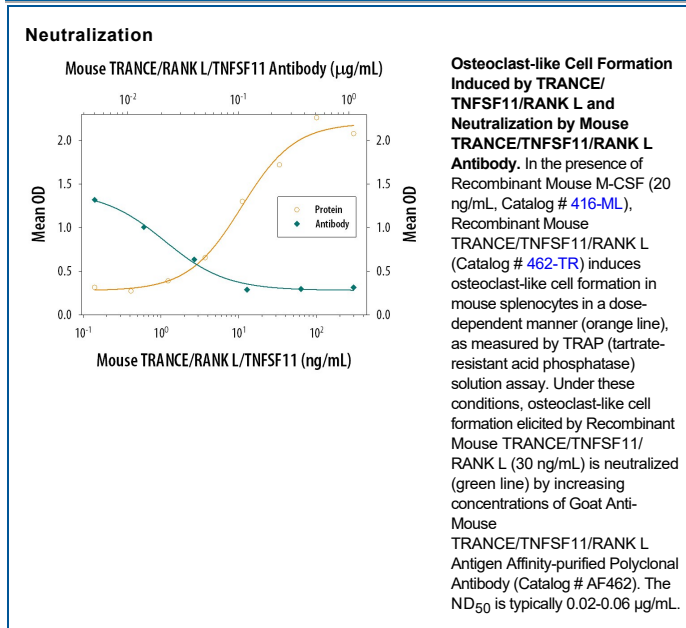
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse TRANCE/TNFSF11/RANK L in ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse TRANCE/TNFSF11/RANK L Arg72-Asp316 Accession # O35235
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse TRANCE/TNFSF11/RANK L (Catalog # 462-TR)
<b>Immunohistochemistry</b>	5-15 µg/mL	Perfusion fixed frozen sections of mouse thymus
<b>Mouse TRANCE/TNFSF11/RANK L Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 µg/mL	Mouse TRANCE/TNFSF11/RANK L Antibody (Catalog # AF462)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Mouse TRANCE/TNFSF11/RANK L Biotinylated Antibody (Catalog # BAF462)
<b>Standard</b>		Recombinant Mouse TRANCE/TNFSF11/RANK L (Catalog # 462-TR)
<b>Neutralization</b>	Measured by its ability to neutralize TRANCE/TNFSF11/RANK L-induced osteoclast-like cell formation in mouse splenocytes. Nakagawa, N. <i>et al.</i> (1998) <i>Biochim. Biophys. Res. Commun.</i> <b>253</b> :395. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.02-0.06 µg/mL in the presence of 30 ng/mL Recombinant Mouse TRANCE/TNFSF11/RANK L.	

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

TRANCE (receptor activator of NF- $\kappa$ B ligand [RANK L], also called TNF-related activation-induced cytokines, osteoprotegerin ligand [OPGL], and osteoclast differentiation factor [ODF]), is a member of the tumor necrosis factor (TNF) family. In the TNF superfamily nomenclature, TRANCE is referred to as TNFSF11. TRANCE was originally identified as an immediate early gene upregulated by T cell receptor stimulation. The murine TRANCE cDNA encodes a type II transmembrane protein of 316 amino acids with a predicted cytoplasmic domain of 48 amino acids and an extracellular domain of 247 amino acids. The extracellular domain contains two potential N-linked glycosylation sites. Mouse and human TRANCE share 85% amino acid identity. TRANCE is primarily expressed in T cells and T cell rich organs, such as thymus and lymph nodes. The multi-functions of TRANCE include induction of activation of the c-jun N-terminal kinase, enhancement of T cell growth and dendritic cell function, induction of osteoclastogenesis, and lymph node organogenesis. RANK is the cell surface signaling receptor of TRANCE. RANK has been shown to undergo receptor clustering during signal transduction. Osteoprotegerin, a soluble member of the TNF receptor family which binds TRANCE, is a naturally occurring decoy receptor that counterbalances the effects of TRANCE.

#### References:

1. Wong, B.R. *et al.* (1997) *J. Biol. Chem.* **272**:25190.
2. Anderson, D.M. *et al.* (1997) *Nature* **390**:175.
3. Nakagawa, N. *et al.* (1998) *Biochem. Biophys. Res. Commun.* **245**:382.
4. Kong, Y-Y. *et al.* (1999) *Nature* **397**:315.