

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse RANK/TNFRSF11A in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse (rm) 4-1BB, rmBAFF R, rmCD27, rmCD30, rmCD40, rmDR3, rmDR6, rmEDAR, rmFAS, rmGITR, recombinant human (rh) HVE                                 |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 100024                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse RANK/TNFRSF11A<br>Leu29-Pro213 (Leu29Met)<br>Accession # O35305                                                                                                                               |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

RANK (receptor activator of NF-κB, also known as TRANCE receptor, osteoclast differentiation factor receptor [ODFR] and TNFRSF11A) is a member of the tumor necrosis factor receptor family. The full length mouse RANK cDNA encodes a type I transmembrane protein of 625 amino acids (aa) with a predicted 184 aa extracellular domain and a 391 aa cytoplasmic domain. The extracellular domain contains two potential N-linked glycosylation sites. RANK shares significant amino acid homology with other members of the TNF R family in its extracellular four cysteine-rich repeats. Human and murine RANK share 81% aa identity in their extracellular domains. RANK is widely expressed with the highest levels in skeletal muscle, thymus, liver, colon, small intestine and adrenal gland. RANK is expressed in dendritic cells. In activated human peripheral blood T lymphocytes, RANK expression is induced by IL-4 and TGF-β. Multiple tumor necrosis factor receptor-associated factors (TRAFs) are involved in the signaling of RANK. TRANCE (TNF-related activation-induced cytokines, also known as RANK ligand [RANKL], osteoprotegerin ligand [OPGL], and osteoclast differentiation factor [ODF]) is the ligand for RANK. The biological functions mediated through RANK include activation of NF-κB and c-jun N-terminal kinase, enhancement of T cell growth and dendritic cell function, induction of osteoclastogenesis, and lymph node organogenesis. Soluble RANK is able to block TRANCE induced biological activity.

#### PRODUCT SPECIFIC NOTICES

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