

## Product datasheet for **TA336373**

### **RANK (TNFRSF11A) Mouse Monoclonal Antibody [Clone ID: 9A725]**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	9A725
<b>Applications:</b>	CyTOF-ready, FC, IHC, WB
<b>Recommended Dilution:</b>	Immunohistochemistry: 1:10-1:500, Immunohistochemistry-Paraffin: 1:10-1:500, Flow (Cell Surface), Western Blot: 1-2 ug/ml, Flow Cytometry: 2-4 ug/ml, CyTOF-ready
<b>Reactivity:</b>	Human, Mouse
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1, kappa
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	A fusion protein containing amino acid residues 326-616 of human RANK was used as immunogen. This antibody recognizes an epitope located between amino acid residues 330-427 of human RANK (NP_003830).
<b>Formulation:</b>	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Concentration:</b>	lot specific
<b>Purification:</b>	Protein G purified
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	tumor necrosis factor receptor superfamily member 11a
<b>Database Link:</b>	<a href="#">NP_003830</a> <a href="#">Entrez Gene 21934 Mouse</a> <a href="#">Entrez Gene 8792 Human</a> <a href="#">Q9Y6Q6</a>



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**Background:** Apoptosis, or programmed cell death, occurs during normal cellular differentiation and development of multicellular organisms. Apoptosis is induced by certain cytokines including TNF and Fas ligand of the TNF family through their death domain containing receptors, TNFR1 and Fas. Receptor activator of NF- $\kappa$ B (RANK) is a recently cloned member of the TNFR superfamily with no significant homology to other members of this family. RANK ligand (RANKL/TRANSE/ OPGL) binds to RANK on dendritic cells, upregulates the expression of anti-apoptotic protein Bcl-XL suggesting a role in dendritic cell survival. The cytoplasmic domain of RANK interacts with TRAF2, TRAF5 and TRAF6. Overexpression of RANK activates NF- $\kappa$ B and c-Jun-terminal kinase (JNK) pathways. Recent studies have shown that RANK interaction with TRAF6 activates NF- $\kappa$ B, whereas JNK activation is mediated through binding of RANK to TRAF2.

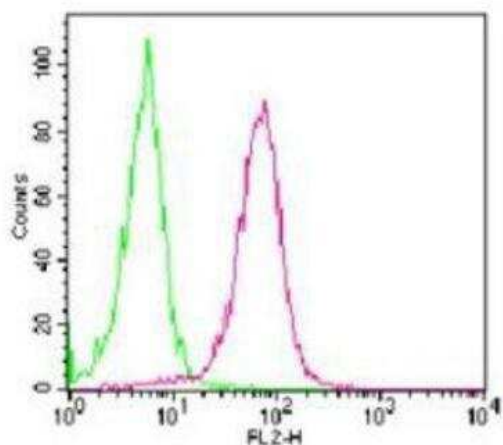
**Synonyms:** CD265; FEO; LOH18CR1; ODFR; OFE; OPTB7; OST5; PDB2; RANK; TRANCER

**Note:** Bharti et al (2004) and Reigel et al (2012) both published the RANK antibody clone 9A725 for Flow (Cell Surface). However, the epitope range recognized by this antibody is a potential cytoplasmic region as defined by [www.uniprot.org](http://www.uniprot.org). Hence, researchers are encouraged to refer to both the publication and the bioinformatics data bases for additional information in order to make their own determination regarding the suitability of the antibody for cell surface flow cytometry.

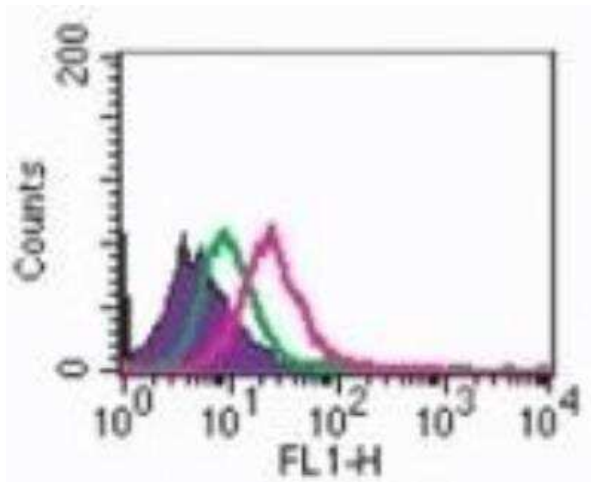
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Cytokine-cytokine receptor interaction

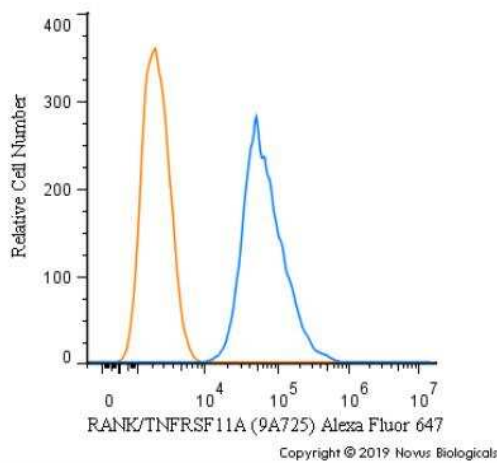
### Product images:



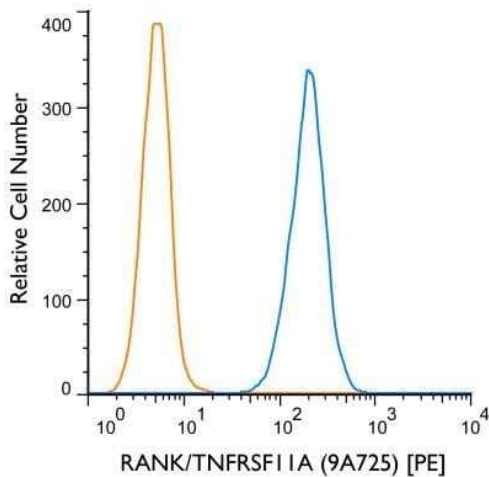
Flow (Cell Surface): RANK/TNFRSF11A Antibody (9A725) TA336373 - Analysis using the PE conjugate of TA336373. Staining of RANK in RAW cells using 0.5  $\mu$ g of RANK antibody. Green histogram represents isotype control; red represents RANK antibody.



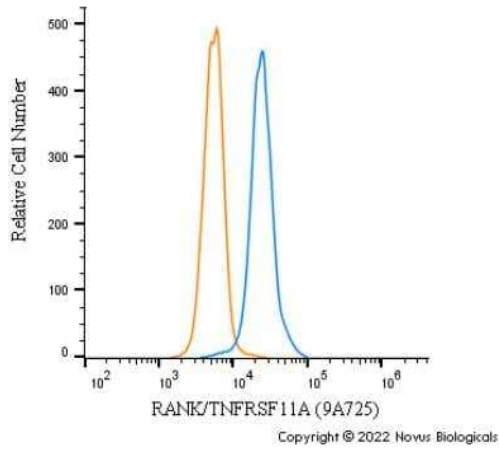
Flow Cytometry: RANK/TNFRSF11A Antibody (9A725) TA336373 - Intracellular flow cytometry analysis of RANK in  $10^6$  RAW cells using 2  $\mu$ g of RANK antibody. Shaded histogram represents RAW cells without antibody; green represents isotype control; antibody red represents RANK antibody.



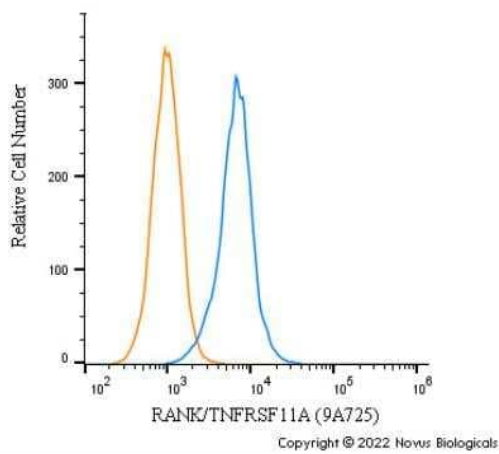
Flow Cytometry: RANK/TNFRSF11A Antibody (9A725) TA336373 - An intracellular stain was performed on Raw264.7 cells with RANK/TNFRSF11A [9A725] Antibody TA336373AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5  $\mu$ g/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



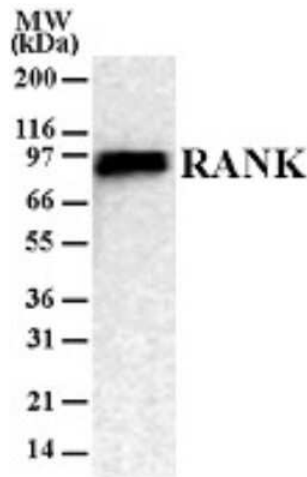
Flow Cytometry: RANK/TNFRSF11A Antibody (9A725) TA336373 - Using the PE direct conjugate An intracellular stain was performed on K-562 cells with RANK/TNFRSF11A (9A725) antibody NB100-56029 (blue) and a matched isotype control NBP1-97005PE (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1  $\mu$ g/mL for 30 minutes at room temperature. Both antibodies were conjugated to Phycoerythrin.



Flow Cytometry: RANK/TNFRSF11A Antibody (9A725) - BSA Free TA336373 - An intracellular stain was performed on MG-63 cells with RANK/TNFRSF11A Antibody (9A725) TA336373 (blue) and a matched isotype control MAB002 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (84540, Thermo Fisher).



Flow Cytometry: RANK/TNFRSF11A Antibody (9A725) - BSA Free TA336373 - An intracellular stain was performed on Raw264.7 cells with RANK/TNFRSF11A Antibody (9A725) TA336373 (blue) and a matched isotype control MAB002 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (84540, Thermo Fisher).



Western Blot: RANK/TNFRSF11A Antibody (9A725) TA336373 - Analysis of RANK in transfected 293 cells using RANK antibody at 2 ug/ml.