# **Product Datasheet**

## TRANCE/TNFSF11/RANK L Antibody (12A668) - Azide and BSA Free NB100-56593

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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## NB100-56593

TRANCE/TNFSF11/RANK L Antibody (12A668) - Azide and BSA Free

Product Information		
Unit Size	0.1 mg	
Concentration	1.0 mg/ml	
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.	
Clonality	Monoclonal	
Clone	12A668	
Preservative	No Preservative	
Isotype	IgG1 Kappa	
Purity	Protein G purified	
Buffer	Sterile - filtered PBS	
Target Molecular Weight	35 kDa	
Product Description		
Host	Mouse	
Gene ID	8600	
Gene Symbol	TNFSF11	
Species	Human, Mouse, Rat	
Immunogen	A bacterially expressed fusion protein containing amino acid residues 1-317 of mouse TRANCE was used as immunogen (NP_003692).	
Product Application Details		
Applications	Western Blot, Chromatin Immunoprecipitation, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Chromatin Immunoprecipitation (ChIP), CyTOF- ready	
Recommended Dilutions	Western Blot 1-2 ug/ml, Chromatin Immunoprecipitation 1:10-1:500. Use reported in scientific literature (PMID 25859979), Flow Cytometry, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin 1 - 5 ug/ml, Chromatin Immunoprecipitation (ChIP) 1:10-1:500, CyTOF-ready	
Application Notes	Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.	

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### Images

Western Blot: TRANCE/TNFSF11/RANK L Antibody (12A668) - Azide Free [NB100-56593] - Analysis of human lymph node lysate (35ug per lane, RIPA buffer) at 0.5ug/ml. Band detected at ~35kDa and ~28kDa. (Expected MW of 35.5kDa according to NP_003692.1 and of 27.7kDa according to NP_143026.1)	250kDa 150kDa 100kDa 75kDa 50kDa 37kDa 25kDa 20kDa 15kDa
Immunocytochemistry/Immunofluorescence: TRANCE/TNFSF11/RANK L Antibody (12A668) - Azide Free [NB100-56593] - TRANCE was detected in immersion fixed mouse splenocytes using anti- human/mouse/rat mouse monoclonal antibody (Catalog # NB100-56512) for 1 hour at room temperature. Cells were stained using NL557 (red) fluorescent anti-mouse secondary antibodies (Catalog # NL007) and counterstained with DAPI (blue). Image using the standard format of this product.	
Immunohistochemistry-Paraffin: TRANCE/TNFSF11/RANK L Antibody (12A668) - Azide Free [NB100-56593] - Formalin-fixed, paraffin- embedded human lymph node probed with Trance antibody at 5 ug/ml. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min.	
Western Blot: TRANCE/TNFSF11/RANK L Antibody (12A668) - Azide Free [NB100-56593] - Analysis of transfected cell lysate was probed with 2 ug of Trance antibody.	$ \begin{array}{c} \text{MW}\\ \text{(kDa)}\\ 200 \\ 116 \\ 97 \\ 66 \\ 55 \\ 36 \\ 31 \\ 21 \\ 14 \\ 14 \\ \end{array} $ Trance



Immunohistochemistry-Paraffin: TRANCE/TNFSF11/RANK L Antibody (12A668) - Azide Free [NB100-56593] - Formalin-fixed, paraffinembedded human liver stained with Trance antibody (1:500, 1 ug/ml), peroxidase-conjugate and DAB chromogen. A 2 hr incubation at RT was used.



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#### **Publications**

Tanaka T, Kelly M, Takei Y, Yamanouchi D. RANKL-mediated osteoclastogenic differentiation of macrophages in the abdominal aorta of angiotensin II-infused apolipoprotein E knockout mice. J Vasc Surg 2018-04-20 [PMID: 29685509] (ICC/IF, Mouse)

Details:

This citation used the Azide Free version of this antibody.

Hsu H, Lacey DL, Dunstan CR et al. Tumor necrosis factor receptor family member RANK mediates osteoclast differentiation and activation induced by osteoprotegerin ligand. Proc Natl Acad Sci U S A. [PMID: 10097072]

Details:

Citation using the Azide Free form of this antibody.

Shin M, Matsuo K, Tada T et al. The inhibition of RANKL/RANK signaling by osteoprotegerin suppresses bone invasion by oral squamous cell carcinoma cells. Carcinogenesis. 2011-11-01 [PMID: 21890459]

Rubin J, Chung LW, Fan X et al. Prostate carcinoma cells that have resided in bone have an upregulated IGF-I axis. Prostate. 2004-01-01 [PMID: 14673951]

Hu P, Chu GC, Zhu G et al. Multiplexed quantum dot labeling of activated c-Met signaling in castration-resistant human prostate cancer. PLoS One. 2011-01-01 [PMID: 22205960]

Pearse RN, Sordillo EM, Yaccoby S et al. Multiple myeloma disrupts the TRANCE/ osteoprotegerin cytokine axis to trigger bone destruction and promote tumor progression. Proc Natl Acad Sci U S A. 2001-09-25 [PMID: 11562486]

Details:

Antibodies cited [IHC (paraffin)], Figs 1 and 4 (human plasmocytoma and decalified bone marrow): 1. OPG (IMG-103) 2. Trance/RankL/OPGL/ODF (IMG-133).

Kikuchi T, Matsuguchi T, Tsuboi N et al. Gene expression of osteoclast differentiation factor is induced by lipopolysaccharide in mouse osteoblasts via Toll-like receptors. J Immunol. 2001-03-01 [PMID: 11207318]

Fiumara P, Snell V, Li Y et al. Functional expression of receptor activator of nuclear factor kappaB in Hodgkin disease cell lines. Blood. 2001-11-01 [PMID: 11675352]

Parrula C, Zimmerman B, Nadella P et al. Expression of tumor invasion factors determines systemic engraftment and induction of humoral hypercalcemia in a mouse model of adult T-cell leukemia. Vet Pathol. 2009-09-01 [PMID: 19429977]

Details:

RankL (IMG-133A) for Flow (cell surface), Fig 9 (MET-1 human leukemia cells). 33% of the cells were positive for RankL expression.

Ghoreishi M, Bach P, Obst J et al. Expansion of antigen-specific regulatory T cells with the topical vitamin d analog calcipotriol. J Immunol. 2009-05-15 [PMID: 19414758]

Sandra F, Hendarmin L, Kukita T et al. Ameloblastoma induces osteoclastogenesis: a possible role of ameloblastoma in expanding in the bone. Oral Oncol. 2005-07-01 [PMID: 15935726]

#### Details:

Ameloblastoma tumor tissue and AM-1 cells: 1. OPG (IMG-103A), ELISA (detection): Results described.



#### **Procedures**

#### Western Blot protocol for TRANCE/TNFSF11/RANK L Antibody (NB100-56593)

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.

2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.

3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.

4. Rinse the blot TBS -0.05% Tween 20 (TBST).

5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.

6. Wash the membrane in TBST three times for 10 minutes each.

7. Dilute anti-TRANCE primary antibody in blocking buffer and incubate overnight at 4C with gentle rocking.

8. Wash the membrane in TBST three times for 10 minutes each.

9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.

10. Wash the blot in TBST three times for 10 minutes each (this step can be repeated as required to reduce background).

11. Apply the detection reagent of choice in accordance with the manufacturers instructions.





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## Products Related to NB100-56593

NBL1-17162	TRANCE/TNFSF11/RANK L Overexpression Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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