

## Product datasheet

# Anti-RANKL antibody ab9957

★★★★☆ 4 Abreviews 12 References 3 Images

### Overview

<b>Product name</b>	Anti-RANKL antibody
<b>Description</b>	Rabbit polyclonal to RANKL
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, ELISA, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Highly pure (>98%) recombinant hsRANK-L (human soluble receptor activator of NF-Kappa B Ligand)
<b>General notes</b>	We have received both positive and negative customer feedback on mouse reactivity for this antibody. Therefore, we do not guarantee this species.

### Properties

<b>Form</b>	Lyophilised:Reconstitute with 200µl of sterile water. Please note that if you receive this product in liquid form it has already been reconstituted as described and no further reconstitution is necessary.
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
<b>Storage buffer</b>	PBS, pH 7.4, no preservative, sterile filtered
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	unknown
<b>Light chain type</b>	unknown

### Applications

Our [Abpromise guarantee](#) covers the use of **ab9957** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

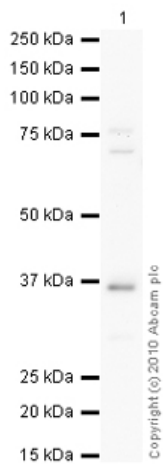
Application	Abreviews	Notes
ICC/IF	★★★★☆	Use a concentration of 1 µg/ml.

Application	Abreviews	Notes
ELISA	★★★★☆	Use at an assay dependent dilution. To detect hsRANK-L by direct ELISA (using 100µl/well antibody solution) a concentration of at least 0.5µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of 0.2 - 0.4 ng/well of recombinant hsRANK-L.
WB	★★★★☆	Use a concentration of 1 µg/ml. Detects a band of approximately 37 kDa (predicted molecular weight: 35 kDa). To detect hsRANK-L by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant hsRANK-L is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.
IHC-P	★★★★★	Use at an assay dependent dilution.

## Target

<b>Function</b>	Cytokine that binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. Osteoclast differentiation and activation factor. Augments the ability of dendritic cells to stimulate naive T-cell proliferation. May be an important regulator of interactions between T-cells and dendritic cells and may play a role in the regulation of the T-cell-dependent immune response. May also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy.
<b>Tissue specificity</b>	Highest in the peripheral lymph nodes, weak in spleen, peripheral blood Leukocytes, bone marrow, heart, placenta, skeletal muscle, stomach and thyroid.
<b>Involvement in disease</b>	Defects in TNFSF11 are the cause of osteopetrosis autosomal recessive type 2 (OPTB2) [MIM:259710]; also known as osteoclast-poor osteopetrosis. Osteopetrosis is a rare genetic disease characterized by abnormally dense bone, due to defective resorption of immature bone. The disorder occurs in two forms: a severe autosomal recessive form occurring in utero, infancy, or childhood, and a benign autosomal dominant form occurring in adolescence or adulthood. Autosomal recessive osteopetrosis is usually associated with normal or elevated amount of non-functional osteoclasts. OPTB2 is characterized by paucity of osteoclasts, suggesting a molecular defect in osteoclast development.
<b>Sequence similarities</b>	Belongs to the tumor necrosis factor family.
<b>Post-translational modifications</b>	The soluble form of isoform 1 derives from the membrane form by proteolytic processing (By similarity). The cleavage may be catalyzed by ADAM17.
<b>Cellular localization</b>	Cytoplasm; Secreted and Cell membrane.

## Images



Western blot - RANKL antibody (ab9957)

Anti-RANKL antibody (ab9957) at 1  $\mu\text{g/ml}$  +  
Human spleen tissue lysate - total protein  
(ab29699) at 10  $\mu\text{g}$

### Secondary

Goat polyclonal Secondary Antibody to Rabbit  
IgG - H&L (HRP), pre-adsorbed at 1/3000  
dilution

Developed using the ECL technique

Performed under reducing conditions.

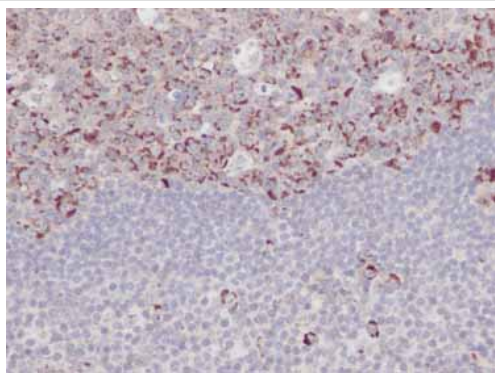
**Predicted band size** : 35 kDa

**Observed band size** : 37 kDa

**Additional bands at** : 72 kDa, 76 kDa. We  
are unsure as to the identity of these extra  
bands.

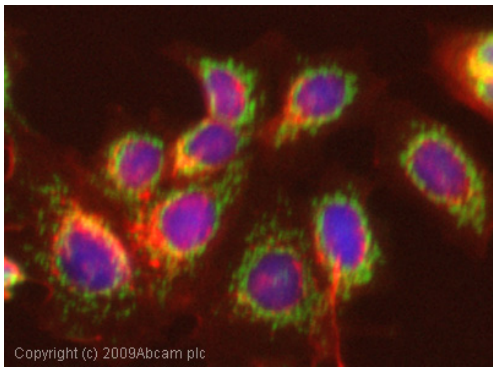
**Exposure time** : 90 seconds RANKL

contains a number of potential glycosylation  
sites (SwissProt) which may explain its  
migration at a higher molecular weight than  
predicted.



Immunohistochemistry (Formalin/PFA-fixed paraffin-  
embedded sections) - RANKL antibody (ab9957)

ab9957 staining RANKL in human metastatic  
carcinoma of lymph nodes from breast  
cancer tissue by Immunohistochemistry  
(Formalin/PFA fixed paraffin-embedded  
sections). Tissue underwent heat mediated  
antigen retrieval in sodium citrate buffer (pH  
6.0). The primary antibody was used at 0.25  
 $\mu\text{g/ml}$  and incubated with sample at 4°C  
overnight. A HRP-labeled polymer detection  
system was used with a DAB chromogen.



Immunocytochemistry/ Immunofluorescence - Anti-RANKL antibody (ab9957)

ICC/IF image of ab9957 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab9957, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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