

Product datasheet

Anti-RANK antibody [64C1385] ab13918

★★★★★ [1 Abreviews](#) [23 References](#) [3 Images](#)

Overview

Product name	Anti-RANK antibody [64C1385]
Description	Mouse monoclonal [64C1385] to RANK
Host species	Mouse
Tested applications	Suitable for: IHC-P, IP
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant fragment within Human RANK. The exact sequence is proprietary. Recombinant fragment containing the extracellular domain (amino acids 33-208) of human RANK.
Positive control	WB: RAW (a mouse macrophage monocyte). IHC-P: Human T cell lymphoma and skin tissues.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p>
Purity	Protein G purified
Clonality	Monoclonal
Clone number	64C1385
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab13918 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
IHC-P	★★★★★ (1)	Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
IP		Use a concentration of 1 - 2 µg/ml.

Target

Function

Receptor for TNFSF11/RANKL/TRANCE/OPGL; essential for RANKL-mediated osteoclastogenesis. Involved in the regulation of interactions between T-cells and dendritic cells.

Tissue specificity

Ubiquitous expression with high levels in skeletal muscle, thymus, liver, colon, small intestine and adrenal gland.

Involvement in disease

Defects in TNFRSF11A are the cause of familial expansile osteolysis (FEO) [MIM:174810]. FEO is a rare autosomal dominant bone disorder characterized by focal areas of increased bone remodeling. The osteolytic lesions develop usually in the long bones during early adulthood. FEO is often associated with early onset deafness and loss of dentition.

Defects in TNFRSF11A are a cause of Paget disease of bone type 2 (PDB2) [MIM:602080]; also known as familial Paget disease of bone. PDB2 is a bone-remodeling disorder with clinical similarities to FEO. Unlike FEO, however, affected individuals have involvement of the axial skeleton with lesions in the spine, pelvis and skull.

Defects in TNFRSF11A are the cause of osteopetrosis autosomal recessive type 7 (OPTB7) [MIM:612301]; also called osteoclast-poor osteopetrosis with hypogammaglobulinemia.

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. OPTB7 is characterized by paucity of osteoclasts, suggesting a molecular defect in osteoclast development. OPTB7 is associated with hypogammaglobulinemia.

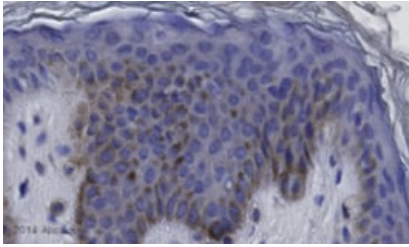
Sequence similarities

Contains 4 TNFR-Cys repeats.

Cellular localization

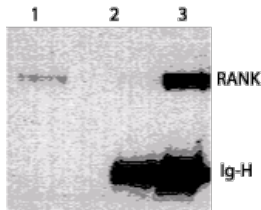
Membrane.

Images



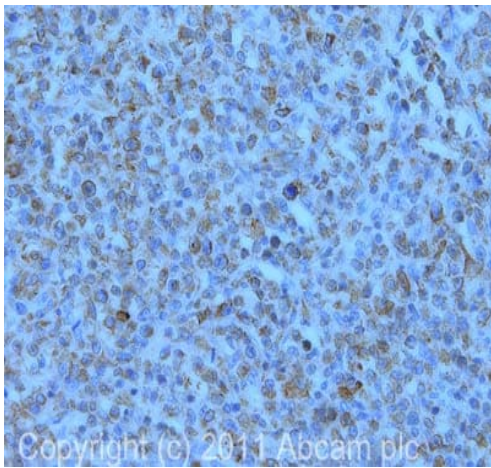
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RANK antibody
[64C1385] (ab13918)

Formaldehyde-fixed, paraffin-embedded human skin tissue stained for RANK using ab13918 at 1/50 dilution in immunohistochemical analysis.



Immunoprecipitation - Anti-RANK antibody
[64C1385] (ab13918)

Detection of RANK in RAW cells. Lane 1: mouse cell line. Lane 2 & 3: IP/Western blot analysis of RANK. RANK protein from RAW cell lysate was immunoprecipitated either with control antibody (lane 2) or ab13918 (lane 3), and detected with ab13918.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RANK antibody
[64C1385] (ab13918)

IHC image of ab13918 staining in human t cell lymphoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab13918, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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