For Research Use Only

TNFSF11/RANKL Polyclonal antibody

Catalog Number:23408-1-AP 66 Publications

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Basic Information

Catalog Number:
23408-1-AP

Concentration:
550 ug/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG19975

GenBank Accession Number:
BC074890

GeneID (NCBI):
8600

UNIPROT ID:
O14788

Full Name:
tumor necrosis factor (ligand) superfamily, member 11

Calculated MW:
317 aa, 35 kDa

Observed MW:
20-30 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:1000
IHC 1:50-1:500

Applications

Tested Applications:
WB, IHC, ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human

Cited Species:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : Raji cells,

IHC : human stomach cancer tissue, human colon tissue, human heart tissue

Background Information

TNFSF11 also known as RANKL, is a member of the tumor necrosis factor (TNF) cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. RANKL is a polypeptide of 217 amino acids that exerts its biological activity both in a transmembrane form of about 40-45 kDa and in soluble one of 31 kDa (PMID: 15308315). The membrane-bound RANKL (mRANKL) is cleaved into a sRANKL by the metalloprotease-disintegrin TNF-alpha convertase (TACE) or a related metalloprotease (MP). RANKL induces osteoclast formation through its receptor, RANK, which transduces signals by recruiting adaptor molecules, such as the TNF receptor-associated factor (TRAF) family of proteins. RANKL was shown to be a dentritic cell survival factor and is involved in the regulation of T cell-dependent immune response. T cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. RANKL was shown to activate antiapoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptor-associated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cell apoptosis.

Notable Publications

Author	Pubmed ID	Journal	Application
Yi Yu	34585393	J Periodontol	WB
Yuan-Wei Zhang	36196151	J Orthop Translat	IHC
Xiaohui Zhao	32980481	J Ethnopharmacol	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
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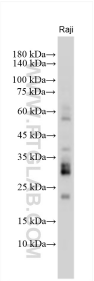
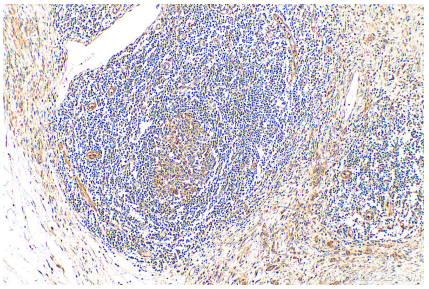
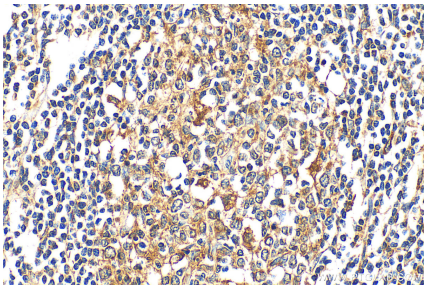
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 23408-1-AP (RANKL antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 23408-1-AP (RANKL antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 23408-1-AP (RANKL antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).