



Rat Anti-Mouse RANKL (CD254) Monoclonal antibody, clone IK22/5 (CABT-L4464)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview

The IK22/5 monoclonal antibody reacts with mouse RANKL (receptor activator of nuclear factor kappa-B ligand) also known as CD254 and TRANCE (TNF-related activation-induced cytokine). RANKL is a 35 kDa type II membrane protein that belongs to the TNF superfamily. RANKL is expressed on activated T lymphocytes in the lung, thymus, and lymph nodes and on osteoclasts. RANKL has been implicated in the regulation of T cell and dendritic cell interactions as well as osteoclast differentiation. Additionally, RANKL was found to be critical for osteoclast differentiation.

Target	Mouse RANKL (CD254)
Immunogen	NSO-derived recombinant mouse RANKL
Isotype	IgG2a, κ
Source/Host	Rat
Species Reactivity	Mouse
Clone	IK22/5
Purification	Protein G purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade
Applications	in vivo RANKL blockade
Molecular Weight	150 kDa
Format	0.2 μM filtered liquid. Purified from tissue culture supernatant in an animal free facility

Concentration	Lot specific
Size	5 mg
Buffer	PBS, pH 6.5. Contains no stabilizers or preservatives. [low endotoxin azide-free] Endotoxin level: <2EU/mg (<0.002EU/μg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB02
Preservative	None
Storage	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
Ship	Wet ice

BACKGROUND

Introduction	This gene encodes 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. This protein was shown to be a dendritic 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. This protein 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. Targeted disruption of the related gene in mice led to severe osteopetrosis and a lack of osteoclasts. The deficient mice exhibited defects in early differentiation of T and B lymphocytes, and failed to form lobulo-alveolar mammary structures during pregnancy. Two alternatively spliced transcript variants have been found. [provided by RefSeq, Jul 2008]
Keywords	TNFSF11;tumor necrosis factor (ligand) superfamily, member 11;ODF;OPGL;sOdf;CD254;OPTB2;RANKL;TRANCE;hRANKL2

GENE INFORMATION

Official Symbol	tumor necrosis factor (ligand) superfamily, member 11
Synonyms	TNFSF11; tumor necrosis factor (ligand) superfamily, member 11; ODF; OPGL; sOdf; CD254; OPTB2; RANKL; TRANCE; hRANKL2
References	Khan, I. S., et al. (2014). "Enhancement of an anti-tumor immune response by transient blockade of central T cell tolerance." J Exp Med 211(5): 761-768. PubMed;