

ARG23651 anti-CD254 / RANKL antibody [IK22/5]

Package: 100 µg

Store at: -20°C

Summary

Product Description	Rat Monoclonal antibody [IK22/5] recognizes CD254 / RANKL. This product recognizes CD254, otherwise known as Receptor activator of nuclear factor kappa B ligand (RANKL) or TNF-related activation-induced cytokine (TRANCE), a member of the tumour necrosis factor ligand superfamily. CD254 is a cytokine that binds osteoprotegerin or RANK and plays an important role in bone metabolism, where it acts as an osteoclast differentiation and activation factor. Overproduction of CD254 is implicated in a range of degenerative bone diseases. CD254 is also expressed by T helper cells and augments the ability of dendritic cells to stimulate naïve T cell proliferation. It may play a role in regulating interactions between T cells and dendritic cells and in the regulation of T cell-dependent immune responses. Rat anti Mouse CD254 antibody, clone IK22/5 blocks ligand binding.
Tested Reactivity	Ms
Tested Application	FACS, ICC/IF, IHC-Fr, IP, WB
Host	Rat
Clonality	Monoclonal
Clone	IK22/5
Isotype	IgG2a
Target Name	CD254 / RANKL
Species	Mouse
Conjugation	Un-conjugated
Alternate Names	TRANCE; Osteoprotegerin ligand; CD254; sOdf; Receptor activator of nuclear factor kappa-B ligand; OPTB2; RANKL; OPGL; Tumor necrosis factor ligand superfamily member 11; hRANKL2; TNF-related activation-induced cytokine; Osteoclast differentiation factor; ODF; CD antigen CD254

Application Instructions

Application table	Application	Dilution
	FACS	1:10 - 1:20
	ICC/IF	Assay-dependent
	IHC-Fr	Assay-dependent
	IP	Assay-dependent
	WB	Assay-dependent
Application Note	FACS: Use 10 µl of the suggested working dilution to label 10 ⁶ cells in 100 µl. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
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Purification	Purified by affinity chromatography.
Buffer	PBS and 0.09% Sodium azide.
Preservative	0.09% Sodium azide
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	TNFSF11
Gene Full Name	tumor necrosis factor (ligand) superfamily, member 11
Background	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]
Function	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. [UniProt]
Calculated Mw	35 kDa
PTM	The soluble form of isoform 1 derives from the membrane form by proteolytic processing (By similarity). The cleavage may be catalyzed by ADAM17. [UniProt]