

ARG65521
anti-CD305 / LAIR1 antibody [NKTA255]Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [NKTA255] recognizes CD305 / LAIR1
Tested Reactivity	Hu
Tested Application	FACS, IP, WB
Specificity	The clone NKTA255 recognizes CD305 / LAIR1, a 40 kDa type I transmembrane glycoprotein expressed on NK, T, and B cells, monocytes, dendritic cells, eosinophils, basophils, mast cells, CD34+ hematopoietic progenitor cells and thymocytes.
Host	Mouse
Clonality	Monoclonal
Clone	NKTA255
Isotype	IgG1
Target Name	CD305 / LAIR1
Immunogen	Activated NK cells and CD3- thymocytes
Conjugation	Un-conjugated
Alternate Names	LAIR-1; hLAIR1; CD305; CD antigen CD305; Leukocyte-associated immunoglobulin-like receptor 1

Application Instructions

Application table	Application	Dilution
	FACS	1 - 4 µg/ml
	IP	Assay-dependent
	WB	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Purified from cell culture supernatant by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 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

Database links

[GeneID: 3903 Human](#)

[Swiss-port # Q6GTX8 Human](#)

Gene Symbol

LAIR1

Gene Full Name

leukocyte-associated immunoglobulin-like receptor 1

Background

CD305, also known as LAIR1 (leukocyte-associated Ig-like receptor 1), is an inhibitory receptor found on many types of peripheral blood cells. It serves to suppress cell cytotoxicity, activation, proliferation, and differentiation regarding autoantigens via its two intracellular ITIM sites. CD305 belongs to the immunoglobulin superfamily and the leukocyte-associated inhibitory receptor family of proteins. It reacts with collagen ligands.

Function

Functions as an inhibitory receptor that plays a constitutive negative regulatory role on cytolytic function of natural killer (NK) cells, B-cells and T-cells. Activation by Tyr phosphorylation results in recruitment and activation of the phosphatases PTPN6 and PTPN11. It also reduces the increase of intracellular calcium evoked by B-cell receptor ligation. May also play its inhibitory role independently of SH2-containing phosphatases. Modulates cytokine production in CD4+ T-cells, down-regulating IL2 and IFNG production while inducing secretion of transforming growth factor beta. Down-regulates also IgG and IgE production in B-cells as well as IL8, IL10 and TNF secretion. Inhibits proliferation and induces apoptosis in myeloid leukemia cell lines as well as prevents nuclear translocation of NF-kappa-B p65 subunit/RELA and phosphorylation of I-kappa-B alpha/CHUK in these cells. Inhibits the differentiation of peripheral blood precursors towards dendritic cells. [UniProt]

Research Area

Immune System antibody

Calculated Mw

31 kDa

PTM

Phosphorylation at Tyr-251 and Tyr-281 activates it. May be phosphorylated by LCK. N-glycosylated.