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Anti-CD244/2B4 Antibody

Catalog # ABO11365

Product Information

Application	WB, IHC-P
Primary Accession	Q9BZW8
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Natural killer cell receptor 2B4(CD244) detection. Tested with WB, IHC-P in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	51744
Other Names	Natural killer cell receptor 2B4, NK cell activation-inducing ligand, NAIL, NK cell type I receptor protein 2B4, NKR2B4, h2B4, SLAM family member 4, SLAMF4, Signaling lymphocytic activation molecule 4, CD244, CD244, 2B4
Calculated MW	41616
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Membrane ; Single-pass type I membrane protein .
Tissue Specificity	Expressed in spleen, PBL, followed by lung, liver, testis and small intestine. Expressed not only in NK cells, but also on monocytes and basophils. .
Source	Eukaryota
Protein Name	Natural killer cell receptor 2B4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CD244(357-370aa RLSRKELENFDVYS).
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

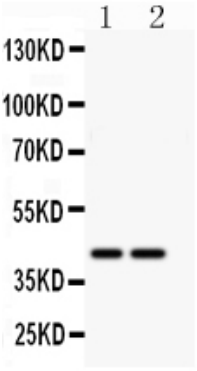
Protein Information

Name	CD244
Synonyms	2B4
Function	Heterophilic receptor of the signaling lymphocytic activation molecule (SLAM) family; its ligand is CD48. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2. Acts as activating natural killer (NK) cell receptor (PubMed:10359122, PubMed:11714776, PubMed:8376943). Activating function implicates association with SH2D1A and FYN (PubMed:15713798). Downstreaming signaling involves predominantly VAV1, and, to a lesser degree, INPP5D/SHIP1 and CBL. Signal attenuation in the absence of SH2D1A is proposed to be dependent on INPP5D and to a lesser extent PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:10934222, PubMed:15713798). Stimulates NK cell cytotoxicity, production of IFN-gamma and granule exocytosis (PubMed:11714776, PubMed:8376943). Optimal expansion and activation of NK cells seems to be dependent on the engagement of CD244 with CD48 expressed on neighboring NK cells (By similarity). Acts as costimulator in NK activation by enhancing signals by other NK receptors such as NCR3 and NCR1 (PubMed:10741393). At early stages of NK cell differentiation may function as an inhibitory receptor possibly ensuring the self-tolerance of developing NK cells (PubMed:11917118). Involved in the regulation of CD8(+) T-cell proliferation; expression on activated T-cells and binding to CD48 provides costimulatory-like function for neighboring T-cells (By similarity). Inhibits inflammatory responses in dendritic cells (DCs) (By similarity).
Cellular Location	Membrane; Single- pass type I membrane protein. Cell membrane. Membrane raft Note=Receptor engagement results in a recruitment to lipid drafts essential for the subsequent tyrosine phosphorylation of the ITSMs
Tissue Location	Expressed in spleen, PBL, followed by lung, liver, testis and small intestine. Expressed in all natural killer (NK) cells, monocytes and basophils, TCR-gamma/delta+ T-cells, monocytes, basophils, and on a subset of CD8(+) T-cells

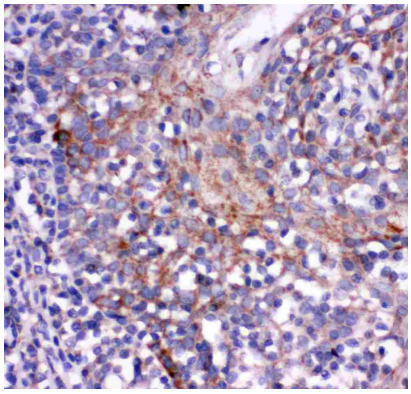
Background

CD244(Cluster of Differentiation 244) is a human protein encoded by the CD244 gene. It is also known as Natural Killer Cell Receptor 2B4. Tangye et al.(1999) mapped the 2B4 gene to 1q22. Suzuki et al.(2008) identified a functional single-nucleotide polymorphism(SNP) in the CD244 gene that contributes to rheumatoid arthritis susceptibility. Functional analysis by Boles et al.(1999) demonstrated that engagement of 2B4 with specific antibody activates NK cytolytic activity. Using recombinant human NK cell-activating ligand 2B4 fused to domains 3 and 4 of rodent Cd4 and flow cytometric analysis, Brown et al.(1998) demonstrated that CD48 binds to 2B4. Watzl et al.(2000) showed that antibody-mediated cross-linking of 2B4 leads to its rapid tyrosine phosphorylation, which is necessary for 2B4-mediated killer cell activity.

Images



Anti- CD244 antibody, ABO11365, Western blottingAll lanes: Anti CD244 (ABO11365) at 0.5ug/mlLane 1: MCF-7 Whole Cell Lysate at 40ugLane 2: HELA Whole Cell Lysate at 40ugPredicted bind size: 42KDObserved bind size: 42KD



Anti- CD244 antibody, ABO11365, IHC(P)IHC(P): Human Tonsil Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.