

**Goat Anti-phospho-CD244 / 2B4 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF2204a****Specification**

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**Goat Anti-phospho-CD244 / 2B4 Antibody - Product Information**

Application	IP, E
Primary Accession	<a href="#">Q9BZW8</a>
Other Accession	<a href="#">NP_057466</a> , <a href="#">51744</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	41616

**Goat Anti-phospho-CD244 / 2B4 Antibody - 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

**Dilution**

IP~~N/A

E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-phospho-CD244 / 2B4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-phospho-CD244 / 2B4 Antibody - 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:<a href="http://www.uniprot.org/citations/10359122" target="\_blank">10359122</a>, PubMed:<a href="http://www.uniprot.org/citations/11714776" target="\_blank">11714776</a>, PubMed:<a href="http://www.uniprot.org/citations/8376943" target="\_blank">8376943</a>). Activating function implicates association with SH2D1A and FYN (PubMed:<a href="http://www.uniprot.org/citations/15713798" target="\_blank">15713798</a>). 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:<a href="http://www.uniprot.org/citations/10934222" target="\_blank">10934222</a>, PubMed:<a href="http://www.uniprot.org/citations/15713798" target="\_blank">15713798</a>). Stimulates NK cell cytotoxicity, production of IFN-gamma and granule exocytosis (PubMed:<a href="http://www.uniprot.org/citations/11714776" target="\_blank">11714776</a>, PubMed:<a href="http://www.uniprot.org/citations/8376943" target="\_blank">8376943</a>). 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:<a href="http://www.uniprot.org/citations/10741393" target="\_blank">10741393</a>). At early stages of NK cell differentiation may function as an inhibitory receptor possibly ensuring the self-tolerance of developing NK cells (PubMed:<a href="http://www.uniprot.org/citations/11917118" target="\_blank">11917118</a>). 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

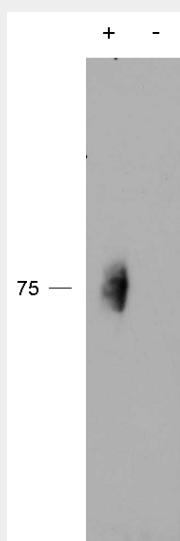
Expressed in spleen, PBL, followed by lung, liver, testis and small intestine. Expressed in all natural killer (NK) cells, monocytes and basophils, TCR-gamma/delta+ T-cells, monocytes, basophils, and on a subset of CD8(+) T-cells

## Goat Anti-phospho-CD244 / 2B4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Goat Anti-phospho-CD244 / 2B4 Antibody - Images



AF2204a (2 µg/ml) staining of IP from a lysate of Human Natural Killer cells with (+) or without (-) pervanadate treatment of the cells. Primary incubation was 1 hour. Detected by chemiluminescence. Data kindly provided by Dr Nicholas G Clarkson, Sir William Dunn School of Pathology, Oxford, UK

#### **Goat Anti-phospho-CD244 / 2B4 Antibody - Background**

This gene encodes a cell surface receptor expressed on natural killer (NK) cells (and some T cells) that mediate non-major histocompatibility complex (MHC) restricted killing. The interaction between NK-cell and target cells via this receptor is thought to modulate NK-cell cytolytic activity. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

#### **Goat Anti-phospho-CD244 / 2B4 Antibody - References**

Single nucleotide polymorphisms of CD244 gene predispose to renal and neuropsychiatric manifestations with systemic lupus erythematosus. Ota Y, et al. *Mod Rheumatol*, 2010 May 1. PMID 20437071.

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. *Mol Med*, 2010 Jul-Aug. PMID 20379614.

Altered expression of signalling lymphocyte activation molecule (SLAM) family receptors CS1 (CD319) and 2B4 (CD244) in patients with systemic lupus erythematosus. Kim JR, et al. *Clin Exp Immunol*, 2010 Jun. PMID 20345977.

New genetic associations detected in a host response study to hepatitis B vaccine. Davila S, et al. *Genes Immun*, 2010 Apr. PMID 20237496.

The association of MHC class I proteins with the 2B4 receptor inhibits self-killing of human NK cells. Betser-Cohen G, et al. *J Immunol*, 2010 Mar 15. PMID 20164429.