# abcam

# Product datasheet

# Anti-LAIR1 antibody ab197804

# 1 Image

#### Overview

Product name Anti-LAIR1 antibody

**Description** Rabbit polyclonal to LAIR1

Host species Rabbit

Tested applications Suitable for: WB

Species reactivity Reacts with: Mouse

Predicted to work with: Rat

**Immunogen** Fusion protein within Human LAIR1 (internal sequence). The exact sequence is proprietary.

Fusion protein corresponding to a region derived from internal residues of human LAIR1. The

fusion partner is GST.

Database link: **Q6GTX8** 

Positive control Mouse liver tissue lysate

**General notes**The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

#### **Properties**

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.4

Preservative: 0.05% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine)

Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

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#### **Applications**

The Abpromise quarantee

Our **Abpromise quarantee** covers the use of ab197804 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes	
WB		1/500 - 1/2000. Predicted molecular weight: 31 kDa.	

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**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, downregulating 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.

**Tissue specificity** 

Expressed on the majority of peripheral mononuclear cells, including natural killer (NK) cells, T-cells, B-cells, monocytes, and dendritic cells. Highly expressed in naive T-cells and B-cells but no expression on germinal center B-cells. Abnormally low expression in naive B-cells from HIV-1 infected patients. Very low expression in NK cells from a patient with chronic active Epstein-Barr virus infection.

Sequence similarities

Contains 1 lg-like C2-type (immunoglobulin-like) domain.

Developmental stage

Complete loss of expression when naive B-cells proliferates and differentiates into Ig-producing

plasma cells under in vitro stimulation.

**Domain** 

ITIM (immunoreceptor tyrosine-based inhibitor motif) motif is a cytoplasmic motif present in 2 copies in the intracellular part of LAIR1. When phosphorylated, ITIM motif can bind the SH2 domain of several SH2-containing phosphatases, leading to down-regulation of cell activation.

Post-translational modifications

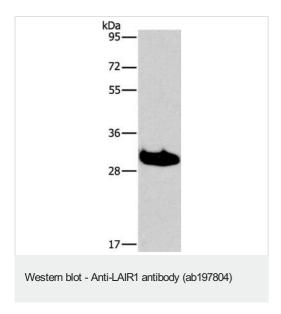
Phosphorylation at Tyr-251 and Tyr-281 activates it. May be phosphorylated by LCK.

N-glycosylated.

**Cellular localization** 

Cell membrane.

# **Images**



Anti-LAIR1 antibody (ab197804) at 1/550 dilution + mouse liver tissue lysate at 40  $\mu g$ 

Predicted band size: 31 kDa

Exposure time: 30 seconds

Gel: 15%SDS-PAGE

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

## Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
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- We provide support in Chinese, English, French, German, Japanese and Spanish
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