

## Technical Data Sheet

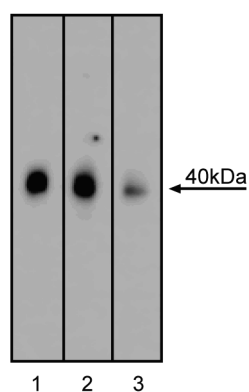
**Purified Mouse Anti-Human LAIR-1****Product Information**

<b>Material Number:</b>	<b>610974</b>
<b>Alternate Name:</b>	Leukocyte Associated Immunoglobulin Like Receptor-1
<b>Size:</b>	50 µg
<b>Concentration:</b>	250 µg/ml
<b>Clone:</b>	14/LAIR-1
<b>Immunogen:</b>	Human LAIR-1 aa. 188-287
<b>Isotype:</b>	Mouse IgG1
<b>Reactivity:</b>	QC Testing: Human
<b>Target MW:</b>	40 kDa
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

**Description**

Natural killer (NK) cells are a lymphocyte subpopulation that functions in innate immunity. Unlike cytotoxic T cells, NK cells specifically lyse targets that lack surface MHC class I expression. Inhibitory receptors on the surface of NK cells promote this specificity via the down regulation of lytic activity in response to target cell MHC expression. LAIR-1 (leukocyte-associated immunoglobulin-like receptor-1) is an inhibitory receptor that is constitutively expressed on human peripheral blood mononuclear leukocytes. The structural characteristics of LAIR-1 include a single extracellular immunoglobulin-like domain and a cytoplasmic tail containing two immune receptor tyrosine-based inhibitory motifs (ITIMs). LAIR-1 crosslinking induces the recruitment of the protein phosphatases SHP-1 and SHP-2 to the ITIMs. These molecules are likely candidates to mediate the negative signal generated by LAIR-1. Although LAIR-1 binding inhibits NK activity, it is not thought to interact with MHC class I. Thus, LAIR-1 is a novel inhibitory receptor that functions independently of MHC recognition to repress the activity of NK cells and possibly, other mononuclear leukocytes. LAIR-1 has been reported to have a calculated molecular weight of 32 kD, but is observable at 40 kD.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



**Western blot analysis of LAIR-1 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-human LAIR-1 antibody.**

**Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20° C.

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## Application Notes

### Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

### Recommended Assay Procedure:

**Western blot:** Please refer to [http://www.bdbiosciences.com/pharmingen/protocols/Western\\_Blotting.shtml](http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml)

### Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

### References

Meyaard L, Adema GJ, Chang C. LAIR-1, a novel inhibitory receptor expressed on human mononuclear leukocytes. 1997; 7(2):283-290.(Biology)