

Rabbit Anti-CD272 antibody

SL0624R

Product Name CD272

Chinese Name B 和 Tlymphocyte 衰减蛋白抗体

Alias B and T lymphocyte associated protein; B and T lymphocyte attenuator; B and T lymphocyte associated; BTLA; BTLA1; CD272 antigen; FLJ16065; MGC129743; BTLA_HUMAN; B- and T-lymphocyte attenuator; B- and T-lymphocyte-associated protein.

Research Area Tumour Cell biology immunology lymphocyte t-lymphocyte b-lymphocyte

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, Rat,

Applications WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 28kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human B and T-lymphocyte attenuator: 221-289/289 <Cytoplasmic>

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

PubMed

[PubMed](#)

B and T lymphocyte attenuator (BTLA), an immunoglobulin domain-containing glycoprotein with two immunoreceptor tyrosine-based inhibitory motifs. BTLA is not expressed by naive T cells, but it is induced during activation and remains expressed on T helper type 1 (T(H)1) but not T(H)2 cells. Crosslinking BTLA with antigen receptors induces its tyrosine phosphorylation and association with the Src homology domain 2 (SH2)-containing protein tyrosine phosphatases SHP-1 and SHP-2, and attenuates production of interleukin 2 (IL-2). BTLA-deficient T cells show increased proliferation, and BTLA-deficient mice have increased specific antibody responses and enhanced sensitivity to experimental autoimmune encephalomyelitis. B7x, a peripheral homolog of B7, is a ligand of BTLA. Thus, BTLA is a third inhibitory receptor on T lymphocytes with similarities to cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) and programmed death 1 (PD-1).

Function:

Lymphocyte inhibitory receptor which inhibits lymphocytes during immune response.

Subunit:

Interacts with tyrosine phosphatases PTPN6/SHP-1 and PTPN11/SHP-2. Interacts with TNFRSF14/HVEM.

**Product
Detail**

Subcellular Location:

Membrane; Single-pass type I membrane protein (Potential).

Post-translational modifications:

Phosphorylated on Tyr residues by TNFRSF14 and by antigen receptors cross-linking, both inducing association with PTPN6 and PTPN11.

N-glycosylated.

Similarity:

Contains 1 Ig-like V-type (immunoglobulin-like) domain.

SWISS:

Q7Z6A9

Gene ID:

151888

Database links:

[Entrez Gene: 151888](#) Human

[Entrez Gene: 208154](#) Mouse

[Entrez Gene: 407756](#) Rat

[Omim: 607925](#) Human

[SwissProt: Q7Z6A9](#) Human

[SwissProt: Q7TSA3](#) Mouse

[SwissProt: Q6PNM1](#) Rat

[Unigene: 445162](#) Human

[Unigene: 38199](#) Mouse

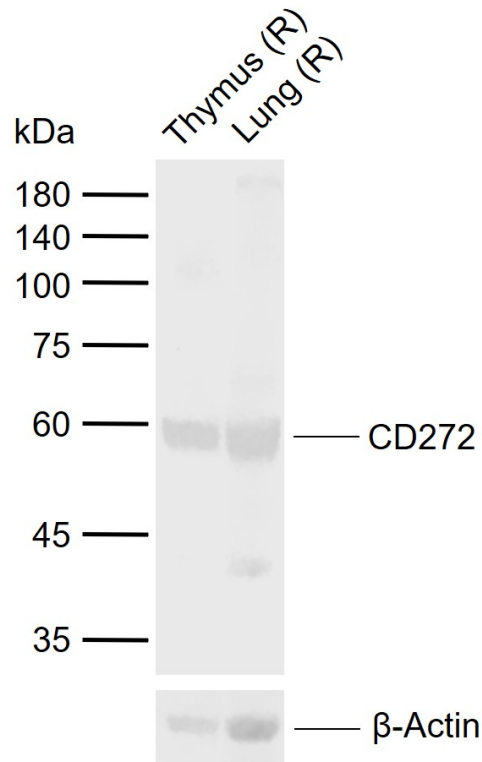
[Unigene: 124474](#) Rat

BTLA 对 T 细胞的活化、增殖起着重要的负调控作用，BTLA 相应配体为 TNFR 超家族中的疱疹病毒入侵介质 (HVEM)，其表达于包括 T 细胞在内的多种免疫细胞表面。

有学者将他定为 CD28 的超级族成员，B、Tlymphocyte 衰减子-CD272 主要用于细胞信号传导方面的研究。

近来国外学者对 BTLA 用于抑制 Tumour 方面的研究也有了新的进展，认为 B、Tlymphocyte 衰减子对 Tumour 的生长有抑制作用，探索新的 Tumour 免疫治疗有了新的途径，封闭此途径有可能成为 Tumour 免疫治疗的新靶点。

**Product
Picture**



Sample:

Lane 1: Rat Thymus tissue lysates

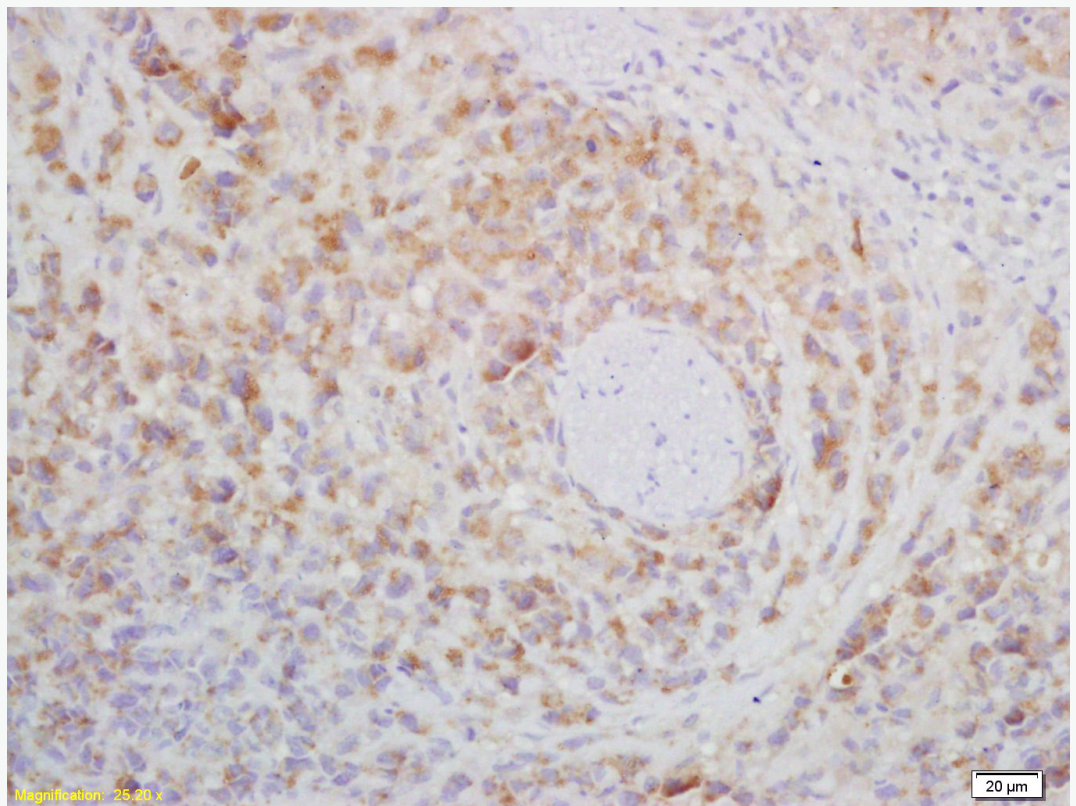
Lane 2: Rat Lung tissue lysates

Primary: Anti-CD272 (SL0624R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 28 kDa

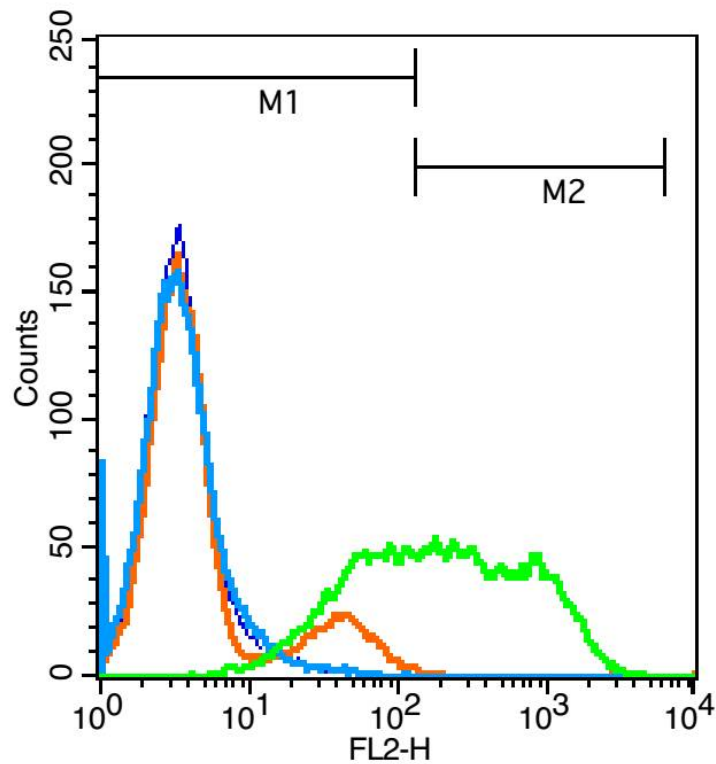
Observed band size: 55 kDa



Tissue/cell: mouse lymphoma tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-CD272/BTLA Polyclonal Antibody, Unconjugated(SL0624R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: Jurkat cells(blue).

Primary Antibody:Rabbit Anti- CD272 antibody(SL0624R), Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange),used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) . Primary antibody (SL0624R, 1 μ g /1x10⁶ cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific



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protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.