

CD272/BTLA Rabbit mAb

Catalog # AP75219

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	Q7TSA3
Reactivity	Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	34337

Additional Information

Gene ID	208154
Other Names	Btla
Dilution	WB~~1:500-1:1000 IHC-P~~N/A FC~~1:200-1:500 IP~~1:20-1:50
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

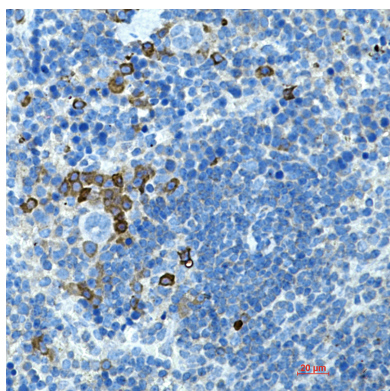
Protein Information

Name	Btla {ECO:0000303 PubMed:12796776, ECO:0000312 MGI:MGI:2658978}
Function	Inhibitory receptor on lymphocytes that negatively regulates antigen receptor signaling via PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed: 12796776 , PubMed: 14652006). May interact in cis (on the same cell) or in trans (on other cells) with TNFRSF14 (PubMed: 19915044). In cis interactions, appears to play an immune regulatory role inhibiting in trans interactions in naive T cells to maintain a resting state. In trans interactions, can predominate during adaptive immune response to provide survival signals to effector T cells (PubMed: 19915044).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Expressed in splenic T- and B-cells as well as lymph node tissues but very weakly in somatic tissues. Also expressed in macrophages, NK cells and dendritic cells. A polymorphic tissue distribution between several strains is seen

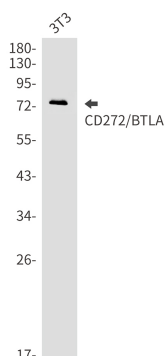
Background

CD272, also known as B and T lymphocyte attenuator (BTLA), is an Ig superfamily co-inhibitory receptor with structural similarity to programmed cell death 1 (PD-1) and CTLA-4. BTLA is expressed on B cells, T cells, macrophages, dendritic cells, NKT cells, and NK cells. Engagement of BTLA by its ligand herpes virus entry mediator (HVEM) is critical for negatively regulating immune response. The absence of BTLA with HVEM inhibitory interactions leads to increased experimental autoimmune encephalomyelitis severity, enhanced rejection of partially mismatched allografts, an increased CD8+ memory T cell population, increased severity of colitis, and reduced effectiveness of T regulatory cells. BTLA plays an important role in the induction of peripheral tolerance of both CD4+ and CD8+ T cells in vivo. Tolerant T cells have significantly higher expression of BTLA compared with effectors and nave T cells. BTLA may cooperate with CTLA-4 and PD-1 to control T cell tolerance and autoimmunity. It was reported that BTLA may regulate T cell function by binding to B7-H4, but further studies are needed to confirm. The existence of three distinct BTLA alleles has been reported.

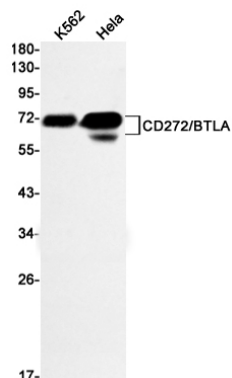
Images



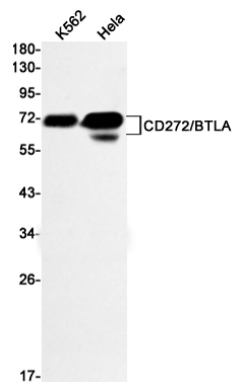
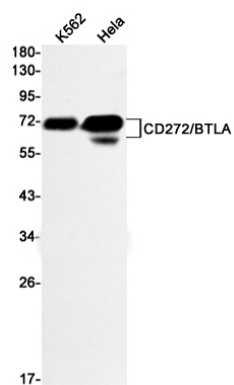
Immunohistochemistry analysis of paraffin-embedded mouse spleen using CD272 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Western blot analysis of CD272/BTLA in 3T3 lysates using CD272/BTLA antibody.



Western blot analysis of CD272/BTLA in K562, HeLa lysates using CD272/BTLA antibody



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