

# BTLA Antibody

Catalog # ASC11697

## Specification

## BTLA Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW

WB, IHC-P, IF, E <u>07Z6A9</u> <u>NP\_861445</u>, <u>145580621</u> Human Rabbit Polyclonal IgG Predicted: 32 kDa

Application Notes

Observed: 40kDa KDa BTLA antibody can be used for detection of BTLA by Western blot at 1 - 2 μg/ml.

## BTLA Antibody - Additional Information

Gene ID 151888 Target/Specificity BTLA; BTLA antibody is human specific. At least two isoforms of BTLA are known to exist.

**Reconstitution & Storage** BTLA antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

#### **Precautions** BTLA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **BTLA Antibody - Protein Information**

Name BTLA {ECO:0000303|PubMed:12796776, ECO:0000312|HGNC:HGNC:21087}

Function

Inhibitory receptor on lymphocytes that negatively regulates antigen receptor signaling via PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:<a href="http://www.uniprot.org/citations/12796776" target="\_blank">12796776</a>, PubMed:<a href="http://www.uniprot.org/citations/14652006" target="\_blank">14652006</a>, PubMed:<a href="http://www.uniprot.org/citations/15568026" target="\_blank">15568026</a>, PubMed:<a href="http://www.uniprot.org/citations/18193050" target="\_blank">18193050</a>). May interact in cis (on the same cell) or in trans (on other cells) with TNFRSF14 (PubMed:<a href="http://www.uniprot.org/citations/19915044" target="\_blank">19915044</a>). 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:<a href="http://www.uniprot.org/citations/19915044" target="\_blank">19915044</a>).

**Cellular Location** 



Cell membrane; Single-pass type I membrane protein

## **BTLA Antibody - Protocols**

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### **BTLA Antibody - Images**



Western blot analysis of BTLA in Jurkat cell lysate at (A) 1 and (B) 2  $\mu$ g/ml.



Immunohistochemistry of BTLA in human small intestine tissue with BTLA antibody at 2.5 µg/mL.





Immunofluorescence of BTLA in human small intestine tissue with BTLA antibody at 20 µg/mL.

## BTLA Antibody - Background

The B- and T-lymphocyte attenuator (BTLA) protein is a member of the immunoglobulin superfamily containing a single immunoglobulin (lg) domain (1). Like other coihibitory receptors such as CTLA-4 and PD-1, BTLA functions as a receptor that relays inhibitory signals to suppress the immune response, and can inhibit LPS-induced endotoxic shock by suppressing TLR4 signaling in innate immune cells (1,2). Polymorphisms in this gene have also been associated with an increased risk of rheumatoid arthritis (3).

## **BTLA Antibody - References**

Carreno BM and Collins M. BTLA: a new inhibitory receptor with a B7-like ligand. Trends Immunol. 2003; 24:524-7.

Kobayashi Y, Iwata A, Suzuki K, et al. B and T lymphocyte attenuator inhibits LPS-induced endotoxic shock by suppressing Toll-like receptor 4 signaling in innate immune cells. Proc. Natl. Acad. Sci. USA 2013; 110:5121-6.

Lin SC, Kuo CC, and Chan CH. Association of a BTLA gene polymorphism with a risk of rheumatoid arthritis. J. Biomed. Sci. 2006; 13:853-60.