

# Rhesus BTLA Protein (Fc Tag)

Catalog Number: 90250-C02H



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

BTLA1; CD272; A630002H24

### Protein Construction:

A DNA sequence encoding the rhesus BTLA (EHH16054.1) (Met1-Leu155) was expressed with the Fc region of human IgG1 at the C-terminus.

**Source:** Rhesus

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

### Bio Activity:

**Immobilized cynoBTLA-Fc at 10 µg/ml (100 µl/well) can bind biotinylated Rhesus TNFRSF14-Fc (Cat:90109-C02H), EC<sub>50</sub> of biotinylated Rhesus TNFRSF14-Fc (Cat:90109-C02H) is 0.7-1.64 µg/ml.**

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Lys 31

### Molecular Mass:

The recombinant rhesus BTLA comprises 366 amino acids and has a calculated molecular mass of 41.4 KDa.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

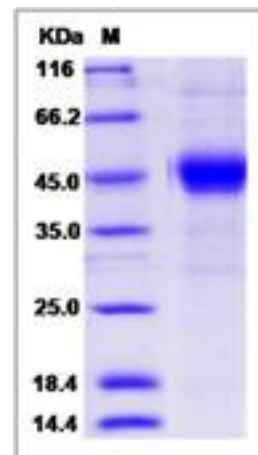
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

BTLA is a inhibitory molecule which belongs to the Ig superfamily. It down-modulates immune responses. As such, reagents that regulate the binding of BTLA to its ligand or alter BTLA signaling have significant therapeutic promise. BTLA is crucial to understand the mechanism(s) of action of these antibodies before attempting clinical applications. 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. 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).

## References

- 1.Fourcade J, et al. (2012) CD8(+) T cells specific for tumor antigens can be rendered dysfunctional by the tumor microenvironment through upregulation of the inhibitory receptors BTLA and PD-1. Cancer Res. 72(4):887-96.
- 2.Kojima R, et al. (2011) Molecular basis for herpesvirus entry mediator recognition by the human immune inhibitory receptor CD160 and its relationship to the cosignaling molecules BTLA and LIGHT. J Mol Biol. 413(4):762-72.
- 3.Oki M, et al. (2011) A functional polymorphism in B and T lymphocyte attenuator is associated with susceptibility to rheumatoid arthritis. Clin Dev Immunol. 305656.

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Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>