

Active Recombinant Human BTNL8 protein, Fc-tagged

Cat. No. BTNL8-186H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human BTNL8(Gln18-Lys238) fused with Fc region of Human IgG1 at C-terminal was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	18-238 a.a.

Description

Butyrophilin-like 8 (BTNL8) is a member of the BTN/MOG Ig-superfamily and functions as a negative regulator of immune cell activation. Human BTNL8 is a 500 amino acid (aa) type I transmembrane glycoprotein that contains a signal peptide followed by an extracellular domain (ECD), a transmembrane region and a short cytoplasmic domain. The ECD of human BTNL8 shares 88% sequence identity with the ECD of mouse BTNL8. BTNL8 has two alternatively spliced forms: B7-like and BTN-like. Both isoforms of BTNL8 are expressed in a range of human tissues. The complete immunological function of BTNL molecules is only beginning to emerge. BTNL8 has been shown to be important in initiation of primary immune responses, suggesting a role in priming of naïve T lymphocytes. Down-regulation of BTNL8 mRNA levels has been associated with ulcerative colitis and colon cancer. BTNL8 are expressed in colon, lung, testis and neutrophils, and its expression is significantly decreased in ulcerative colitis, colonic tumors as compared to unaffected tissue. Soluble BTNL8-Fc fusion protein binds to resting, but not activated T cells. In vitro, BTNL8 co-stimulates T cell proliferation and cytokine production. In vivo injections of

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	BTNL8-Fc significantly increases production of Ag-specific IgG during the primary but not the secondary immune response.
Predicted N Terminal	Trp19
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Bio-activity	Measure by its ability to enhance anti-CD3-induced IFN-gamma secretion of mouse CD3+ T cells. The ED50 for this effect is 0.5-2.5 µg/mL.
Molecular Mass	Predicted Molecular Mass: 52 kDa SDS-PAGE: 53-63 kDa, reducing conditions
Endotoxin	<0.1 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 200 µg/mL in PBS.

GENE INFORMATION

Gene Name	BTNL8 butyrophilin-like 8 [Homo sapiens]
Official Symbol	BTNL8

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Synonyms	BTNL8; butyrophilin-like 8; butyrophilin-like protein 8; FLJ21458; B7-H5 costimulatory molecule; FLJ51528; MGC149619;
Gene ID	79908
mRNA Refseq	NM_001040462
Protein Refseq	NP_001035552
UniProt ID	Q6UX41

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