Human BTNL8 Antibody

Monoclonal Mouse IgG_1 Clone # 1047350

Catalog Number: MAB93591

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BTLN8 in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 1047350
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived human BTNL8 protein Gln18-Lys238 Accession # Q6UX41-1
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

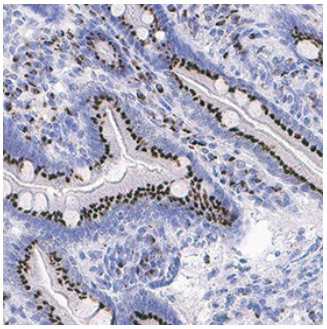
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Immunohistochemistry	5-25 µg/mL	Immersion fixed paraffin-embedded sections of human colon

DATA

Immunohistochemistry



BTNL8 in Human Colon. BTNL8 was detected in immersion fixed paraffin-embedded sections of human colon using Mouse Anti-Human BTNL8 Monoclonal Antibody (Catalog # MAB93591) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in epithelial cells. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Butyrophilin-like 8 (BTNL8) is a member of the BTN/MOG Ig-superfamily and functions as a negative regulator of immune cell activation (1). 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 (2). 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 (3). 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 (3). Down-regulation of BNTL8 mRNA levels has been associated with ulcerative colitis and colon cancer (4). 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 (4). 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 BTNL8-Fc significantly increases production of Ag-specific IgG during the primary but not the secondary immune response (3).

References:

1. Arnett, H.A. *et al.* (2007) J. Immunol. **178**:1523.
2. Arnett, H.A. *et al.* (2009) Cytokine **46**:370.
3. Chapoval, A.I. *et al.* (2013) Mol Immunol. **56**:819.
4. Lebrero-Fernández C. *et al.* (2016) Immun Inflamm Dis. **4**:191.

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

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