Human BTNL8 Alexa Fluor® Plus 555-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 1062005

Catalog Number: FAB11364AFP555

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BTNL8 in direct ELISA
Source	Monoclonal Mouse IgG_{2A} Clone # 1062005
Purification	Protein A or G purified
Immunogen	Synthetic peptide Fc-cleaved human BTNL8
Conjugate	Alexa Fluor Plus 555 Excitation Wavelength: 558 nm Emission Wavelength: 572 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

DATA

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

PRODUCT SPECIFIC NOTICES

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