Human BPIFB1 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 1023923

Catalog Number: FAB101952G

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BPIFB1 in sandwich ELISAs.
Source	Monoclonal Mouse IgG_{2B} Clone # 1023923
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived human BPIFB1 Thr22-Gln484 Accession # Q8TDL5
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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.*

ELISA	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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

BPIFB1 (BPI fold-containing family B member 1), also named LPLUNC1, is a member of the BPI-fold (BPIF) containing/Plunc (palate, lung, and nasal epithelium clone) superfamily of putative innate defense molecules which are predominantly expressed in regions of the oral cavity, nasopharynx and upper respiratory tract (1, 2). BPIF proteins exist as two subgroups, BPIFA (formally SPLUNCs) and BPIFB (formally LPLUNCs) (1, 3). BPIFA proteins have structural homology to the N-terminal domain of BPI whereas BPIFB proteins have structural homology to both domains of BPI (2). Human BPIFB1 cDNA encodes a 484 amino acid (aa) precursor protein with a putative 21 aa signal peptide and a 463 aa mature chain. The mature human BPIFB1 shares approximately 57% and 56% aa sequence identity with mouse and rat BPIFB1, respectively. BPIF proteins appear to exhibit distinct tissue and cell specific expression patterns with various family members, being localized to a number of glandular structures within the upper respiratory tract, nasopharyngeal regions and oral cavity where they are secreted from these tissues and are found in high levels in saliva and nasal and respiratory lining fluids (2). BPIFB1 plays a role in diverse functions, including neutralizing endotoxin (LPS) in septic shock patients, inhibition of endothelial cell growth, dendritic cell maturation, as an anti-angiogenic, chemoattractant or opsonization agent (2). Although less characterized as BPIFA1, BPIFB1 may also function as an innate immune molecule sensing and responding to Gram-negative bacteria (4). BPIFA1 and BPIFB1 expression was increased in late stage chronic obstructive pulmonary disease (COPD) patients, and elevated levels correlate with disease severity (5). BPIFB1 is also upregulated in cystic fibrosis (CF) lung disease and may play a role in the pathogenesis of the disease (6).

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