Human BPI Antibody

Monoclonal Mouse IgG_1 Clone # 971513

Catalog Number: MAB7468

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BPI in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 971513
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	HEK293 human embryonic kidney cell line transfected with human BPI Val32-Lys487 Accession # P17213
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 as a 0.2 μm filtered solution in PBS.

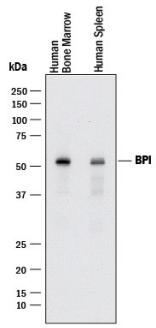
APPLICATIONS

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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	1-25 µg/mL	See Below

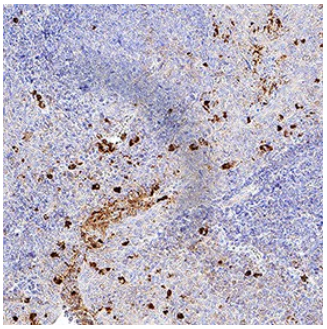
DATA

Western Blot



Detection of Human BPI by Western Blot. Western blot shows lysates of human bone marrow and human spleen tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human BPI Monoclonal Antibody (Catalog # MAB7468) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for BPI at approximately 55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



BPI in Human Tonsil. BPI was detected in immersion fixed paraffin-embedded sections of human tonsil using Mouse Anti-Human BPI Monoclonal Antibody (Catalog # MAB7468) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to macrophages. View 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.

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BACKGROUND

Bactericidal/Permeability Increasing protein (BPI) is a 55 kDa antibacterial glycoprotein that plays a role in innate immunity (1, 2). It belongs to the lipid transfer protein family that also includes LPS binding protein (LBP), cholesteryl ester transfer protein (CETP), and phospholipid transfer protein (PLTP). Circulating levels of BPI are positively correlated with the levels of cholesterol, LDL cholesterol, and HDL cholesterol (3). Mature human BPI shares approximately 55% amino acid (aa) sequence identity with mouse and rat BPI. It can be seceted as a monomer or as a disulfide-linked homodimer (4). It consists of a highly basic N-terminal and a hydrophobic C-terminal domain (5). Its N-terminal domain confers the ability of BPI to bind bacterial lipopolysaccharide (LPS) found in the cell walls of Gram negative bacteria and to induce the lysis and phagocytosis of these bacteria (6-9). It also blocks the endothelial cell response to endotoxin (10). BPI is stored in neutrophil and eosinophil granules for induced secretion during inflammation (11, 12). It is additionally expressed in mucosal epithelia and testis (10, 13). BPI can be retained on the surface of both neutrophils and epithelial cells, presumably by its hydrophobic C-terminal domain (8, 10). BPI also functions as an anti-angiogenic molecule by inhibiting vascular endothelial cell proliferation and tubule formation (14). Like the antibacterial actions, this function is mediated by the N-terminal region (15).

References:

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