

POLYCLONAL ANTIBODY TO HUMAN BACTERICIDAL PERMEABILITY INCREASING PROTEIN (BPI)

Catalog nr

HP9022 (lot number and expiry date are indicated on the label)

Description

The polyclonal antibody reacts specifically with full length human natural and recombinant Bactericidal Permeability Increasing protein (BPI). The antimicrobial protein BPI is a 55 kDa protein found in the primary (azurophilic) granules of human neutrophils and has also been detected on surface of neutrophils, small intestinal and oral epithelial cells. BPI is a bactericidal compound that is present in polymorphonuclear cells (PMN) and in lower levels in the specific granules of eosinophils. BPI possesses high affinity toward the lipid A region of lipopolysaccharides (LPS) that comprise the outer leaflet of the gram-negative bacterial outer membrane. Binding of BPI to the lipid A moiety of LPS exerts multiple anti-infective activities against gram-negative bacteria: 1) cytotoxicity via sequential damage to bacterial outer and inner lipid membranes, 2) neutralization of gram-negative bacterial LPS, 3) opsonization of bacteria to enhance phagocytosis by neutrophils. Airway epithelial cells constitutively express the BPI gene and produce the BPI protein and, therefore, BPI may be a critical determinant in the development of LPS-triggered airways disease. Inflammation induced by LPS possibly contributes to the development of rapid airflow decline, a serious and often fatal complication of hematopoietic cell transplantation. Furthermore, a 21 kDa bioactive recombinant fragment of BPI, rBPI₂₁, was shown to confer a survival advantage against invasive pneumococcal disease by binding to the gram-positive bacterial pathogen, pneumolysin. The polyclonal antibody recognizes only free BPI and does not interact with BPI that has formed a complex with LPS.

Species

Rabbit IgG

Formulation

1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.

Application

The antibody is useful for immuno precipitation. Furthermore the antibody is useful to detect BPI in ELISA both as coating and as detector.

Storage and stability

Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.

Precautions

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and Federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result with the use or derivation of this product.

Also available

HM2040	Monoclonal antibody against Human LBP, clone 6G3
HM2041	Monoclonal antibody against Human BPI, clone 3F9
HM2042	Monoclonal antibody against Human BPI, clone 4H5
HM2043	Monoclonal antibody against Human CD14, clone MEM-18
HM2170	Monoclonal antibody against human BPI, clone 4E3