

**MONOCLONAL ANTIBODY TO HUMAN BACTERICIDAL  
PERMEABILITY INCREASING PROTEIN (BPI)  
clone 3F9**



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<b>Catalog nr</b>	HM2041 (lot number and expiry date are indicated on the label)
<b>Description</b>	<p>The monoclonal antibody 3F9 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, rBPI<sub>21</sub>, was shown to confer a survival advantage against invasive pneumococcal disease by binding to the gram-positive bacterial pathogen, pneumolysin.</p> <p>The monoclonal antibody 3F9 recognizes only free BPI and does not interact with BPI that has formed a complex with LPS.</p>
<b>Species</b>	Mouse IgG <sub>1</sub>
<b>Formulation</b>	1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.
<b>Application</b>	The monoclonal antibody 3F9 can be used for immuno assays both as coating and as detector.
<b>Storage and stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.
<b>Precautions</b>	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.
<b>Also available</b>	HM2040                      Monoclonal antibody against Human LBP, clone 6G3 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 HP9022                      Polyclonal antibody against Human BPI