

Human BPI Protein (His Tag)

Catalog Number: 13907-H08H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

BPIFD1; rBPI

Protein Construction:

A DNA sequence encoding the human BPI (P17213) (Met1-Lys487) with a C-terminal polyhistidine tag was expressed.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Val 32

Molecular Mass:

The recombinant human BPI comprises 467 amino acids and has a predicted molecular mass of 52.1 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

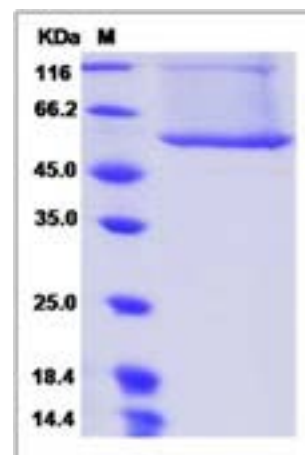
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Bactericidal/permeability-increasing protein is a member of the BPI/LBP/Plunc superfamily and BPI/LBP family. It is a cationic protein which can be detected in the azurophilic granule and on the surface of polymorphonuclear leukocytes. Bactericidal/permeability-increasing protein also is a lipopolysaccharide binding protein. It is associated with human neutrophil granules and has bactericidal activity on gram-negative organisms. Bactericidal/permeability-increasing protein contains two domains that adopt the same structural fold, even though they have little sequence similarity. It binds to and neutralises lipopolysaccharides from the outer membrane of Gram-negative bacteria. The cytotoxic action of bactericidal/permeability-increasing protein is limited to many species of Gram-negative bacteria; this specificity may be explained by a strong affinity of the very basic N-terminal half for the negatively charged lipopolysaccharides that are unique to the Gram-negative bacterial outer envelope.

References

- 1.G Schlag, *et al.* (1999) Protective effect of bactericidal/permeability-increasing protein (rBPI21) in baboon sepsis is related to its antibacterial, not antiendotoxin, properties. *Annals of Surgery.* 229(2): 262-71.
- 2.Michael Levin, *et al.* (2000) Recombinant bactericidal/permeability-increasing protein (rBPI21) as adjunctive treatment for children with severe meningococcal sepsis: a randomised trial. *Lancet.* 356 (9234):961-7.
- 3.Geraldine Canny, *et al.* (2002) Lipid mediator-induced expression of bactericidal/ permeability-increasing protein (BPI) in human mucosal epithelia. *PNAS.* 99(6):3902-7.

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