

Human AZU1 / Azurocidin 1 / CAP37 Protein (His Tag)

Catalog Number: 10660-H08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

AZU1, AZAMP, AZU, CAP37, HBP, HUMAZUR, NAZC

Protein Construction:

A DNA sequence encoding the human AZU1 (NP_001691.1) (Met 1-Pro 250) with a C-terminal polyhistidine tag was expressed.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % 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: Ile 17

Molecular Mass:

The secreted recombinant human AZU1 comprises 235 amino acids with a predicted molecular mass of 25.6 kDa. As a result of glycosylation, rh AZU1 migrates as an approximately 37 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

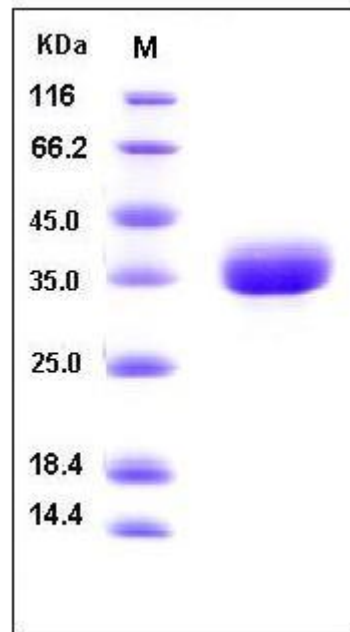
Usage Guide

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.

SDS-PAGE:



Reconstitution:

Detailed reconstitution

products.

Protein Description

Azurocidin 1 (AZU1) is a cationic antimicrobial protein (CAP37), is an azurophilic granule antibiotic protein, with monocyte chemotactic and antibacterial activity. The Azurophilic granules, specialized lysosomes of the neutrophil, contain at least 10 proteins implicated in the killing of microorganisms. AZU1 is a member of the serine protease family that includes Cathepsin G, neutrophil elastase (NE), and proteinase 3 (PR3), however, AZU1 is not a serine proteinase since the active site serine and histidine residues are replaced. Human AZU1 together with NE and PR3 are expressed coordinately and are packaged together into azurophilic granules during neutrophil differentiation. AZU1 has been identified as a modulator of endothelial permeability and an important multifunctional inflammatory mediator. Neutrophils arriving first at sites of inflammation release AZU1, which acts in a paracrine fashion on endothelial cells causing the development of intercellular gaps and allowing leukocyte extravasation. AZU1 thus be regarded as a reasonable therapeutic target for a variety of inflammatory disease conditions.

References

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6. Gautam, N. et al., 2001, Nat. Med. 7: 1123-1127.

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