

AZU1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP14972c**Specification**

AZU1 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P20160](#)**AZU1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 566**Other Names**

Azurocidin, Cationic antimicrobial protein CAP37, Heparin-binding protein, HBP, AZU1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

AZU1 Antibody (Center) Blocking Peptide - Protein Information**Name** AZU1 ([HGNC:913](#))**Function**

This is a neutrophil granule-derived antibacterial and monocyte- and fibroblast-specific chemotactic glycoprotein. Binds heparin. The cytotoxic action 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. It may play a role in mediating recruitment of monocytes in the second wave of inflammation. Has antibacterial activity against the Gram-negative bacterium *P.aeruginosa*, this activity is inhibited by LPS from *P.aeruginosa*. Acting alone, it does not have antimicrobial activity against the Gram-negative bacteria *A.actinomycetemcomitans* ATCC 29532, *A.actinomycetemcomitans* NCTC 9709, *A.actinomycetemcomitans* FDC-Y4, *H.aphrophilus* ATCC 13252, *E.corrodens* ATCC 23834, *C.sputigena* ATCC 33123, *Capnocytophaga* sp ATCC 33124, *Capnocytophaga* sp ATCC 27872 or *E.coli* ML-35. Has antibacterial activity against *C.sputigena* ATCC 33123 when acting synergistically with either elastase or cathepsin G.

Cellular Location

Cytoplasmic granule membrane; Peripheral membrane protein; Cytoplasmic side. Note=Localizes to azurophil granules of neutrophil granulocytes. Also called primary granules, these specialized lysosomes of the neutrophil formed early during promyelocyte development store antibacterial proteins and peptides

AZU1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

AZU1 Antibody (Center) Blocking Peptide - Images

AZU1 Antibody (Center) Blocking Peptide - Background

Azurophil granules, specialized lysosomes of the neutrophil, contain at least 10 proteins implicated in the killing of microorganisms. The protein encoded by this gene is an azurophil granule antibiotic protein, with monocyte chemotactic and antibacterial activity. It is also an important multifunctional inflammatory mediator. This encoded protein is a member of the serine protease gene family but it is not a serine proteinase, because the active site serine and histidine residues are replaced. The genes encoding this protein, neutrophil elastase 2, and proteinase 3 are in a cluster located at chromosome 19pter. All 3 genes are expressed coordinately and their protein products are packaged together into azurophil granules during neutrophil differentiation.

AZU1 Antibody (Center) Blocking Peptide - References

Changho, S., et al. Pathol. Res. Pract. 206(5):314-317(2010) Linder, A., et al. J. Invest. Dermatol. 130(5):1365-1372(2010) Segat, L., et al. Vaccine 28(10):2201-2206(2010) Wilker, E., et al. Environ. Health Perspect. 117(6):935-940(2009) Di Gennaro, A., et al. FASEB J. 23(6):1750-1757(2009)