

Hepcidin Active Protein | Hepc active protein

Active Hepcidin (Hepc)

CATALOG #
AAA150123

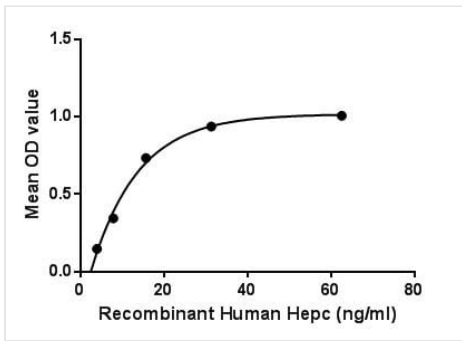
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Hepcidin; Active Hepcidin (Hepc); HAMP; HFE2B; PLTR; LEAP1; Hepcidin Antimicrobial Peptide; Liver-expressed antimicrobial peptide 1; Putative liver tumor regressor; Hepc active protein

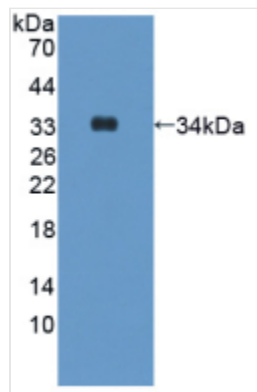
PRODUCT SPECIFICATIONS

Purity/Purification	>95%
Form/Format	Freeze-dried powder PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence Positions	Ser25~Thr84
Sequence Length	84
Applicable Applications for Hepc active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His Tag
Isoelectric Point	9.4
Reconstitution	Reconstitute in 10mM PBS (pH7.6) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

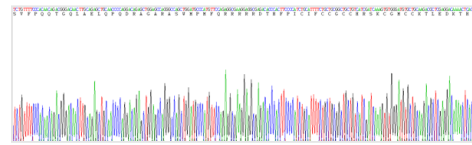


Bioactivity

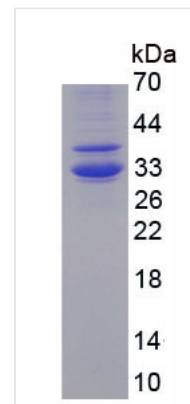
Figure. The binding activity of Hepc with FPN. Hepcidin (Hepc) is a regulator of iron metabolism. Hepcidin inhibits iron transport by binding to the iron export channel ferroportin which is located on the basolateral surface of gut enterocytes and the plasma membrane of reticuloendothelial cells (macrophages). Hepcidin ultimately breaks down the transporter protein in the lysosome. Inhibiting ferroportin prevents iron from being exported and the iron is sequestered in the cells. Besides, Ferroportin (FPN) has been identified as an interactor of Hepc, thus a binding ELISA assay was conducted to detect the interaction of recombinant human Hepc and recombinant human FPN. Briefly, Hepc were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to FPN-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-Hepc pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of Hepc and FPN was shown in Figure 1, and this effect was in a dose dependent manner.



WB (Western Blot)
Figure. Western Blot



Gene Sequencing
Figure. Gene Sequencing (Extract



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for Hepc active protein	Metabolic pathway; Endocrinology; Hematology; Genetic science
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NCBI AND UNIPROT INFORMATION

NCBI GI #	10863973
NCBI GeneID	57817
NCBI Accession #	NP_066998.1
NCBI GenBank Nucleotide #	NP_066998.1
UniProt Accession #	P81172

Molecular Weight	Predicted Molecular Mass: 34.1kDa Accurate Molecular Mass: 34kDa
NCBI Official Full Name	hepcidin preproprotein
NCBI Official Synonym Full Names	hepcidin antimicrobial peptide
NCBI Official Symbol	HAMP
NCBI Official Synonym Symbols	HEPC; PLTR; HFE2B; LEAP1
NCBI Protein Information	hepcidin
UniProt Protein Name	Hepcidin
UniProt Gene Name	HAMP
UniProt Synonym Gene Names	HEPC; LEAP1; LEAP-1; PLTR; Hpc25; Hpc20
UniProt Entry Name	HEPC_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hepc-active-protein/hepcidin/150123>