



[Go to Product page](#)

Datasheet for ABIN3092950

## Hephaestin Protein (HEPH) (AA 24-1110) (His tag)

### Overview

Quantity:	1 mg
Target:	Hephaestin (HEPH)
Protein Characteristics:	AA 24-1110
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Hephaestin protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### Product Details

Sequence: ATRVYYLGIR DVQWNYAPKG RNVITNQPLD SDIVASSFLK SDKNRIGGTY KKTIIYKEYKD  
DSYTDEVAQP AWLGFLGPVL QAEVGDVILI HLKNFATRPY TIHPHG VFYE KDSEGLYPD  
GSSGPLKADD SVPPGGSHIY NWTIPEGHAP TDADPA CLTW IYHSHVDAPR DIATGLIGPL  
ITCKRGALDG NSPPQRQDVD HDFLLFSV DENLSWHLNE NIATYCSDPA SVDKEDETFQ  
ESNRMHAING FVFGNLPELN MCAQKRVAWH LFGMGNEIDV HTAFFHGQML TTRGHHTDVA  
NIFPATFVTA EMVPWEPGTW LISCQVNSHF RDGMQALYKV KSCSMAPPVD LLTGKVRQYF  
IEAHEIQWDY GPMGHDGSTG KNLREPGSIS DKFFQKSSSR IGGTYWKVRY EAFQDETFQE  
KMHLEEDRHL GILGPVIRAE VGDTIQVVFY NRASQPFSMQ PHGVFYEKDY EGTVYNDGSS  
YPGLVAKPFE KVTYRWTVPP HAGPTAQDPA CLTWMYFSAA DPIRDTNSGL VGPLLVCRA  
ALGADGKQKG VDKEFFLLFT VL DENKSWYS NANQAAAML DFRLLSE DIEG FQDSNRMHAI  
NGFLFSNLPR LDMCKGDTVA WHLLGLGTET DVHGVMFQGN TVQLQGMRKG AAMLPHTFV  
MAIMQPDNLG TFEIYCQAGS HREAGMRAIY NVSQCPGHQA TPRQRYQAAR IYYIMAE EVE

WDYCPDRSWE REWHNQSEKD SYGYIFLSNK DGLLGSRYKK AVFREYTDGT FRIPRPRTGP  
EEHLGILGPL IKGEVGDILT VVFKNNASRP YSVHAHGVLE STTVWPLAAE PGEVVTYQWN  
IPERSGPGPN DSACVSWIYY SAVDPIKDMY SGLVGPLAIC QKGILEPHGG RSDMDREFAL  
LFLIFDENKS WYLEENVATH GSQDPGSINL QDETFLSNK MHAINGKLYA NLRGLTMYQG  
ERVAWYMLAM GQDVDLHTIH FHAESFLYRN GENYRADVVD LFPGTFEVVE MVASNPGTWL  
MHCHVTDHVH AGMETLFTVF SRTEHLSPLT VITKETEKAV PPRDIEEGNV KMLGMQIPIK  
NVEMLAS

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

---

### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human HEPH Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

---

### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step

## Product Details

---

through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

---

Target: Hephaestin (HEPH)

Alternative Name: HEPH ([HEPH Products](#))

Background: May function as a ferroxidase for ferrous (II) to ferric ion (III) conversion and may be involved in copper transport and homeostasis. Implicated in iron homeostasis and may mediate iron efflux associated to ferroportin 1.

Molecular Weight: 123.2 kDa Including tag.

UniProt: [Q9BQS7](#)

Pathways: [Transition Metal Ion Homeostasis](#)

## Application Details

---

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

## Handling

---

Format: Liquid

Buffer: 100 mM NaCl, 20 mM HEPES, 10% glycerol. pH value is at the discretion of the manufacturer.

## Handling

---

Handling Advice: Avoid repeated freeze-thaw cycles.

---

Storage: -80 °C

---

Storage Comment: Store at -80°C.

---

Expiry Date: Unlimited (if stored properly)