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[Primary Antibody]

Rabbit Anti-Hephaestin antibody

Catalog Number: SL15458R

FOR RESEARCH USE ONLY

[DATASHEET]

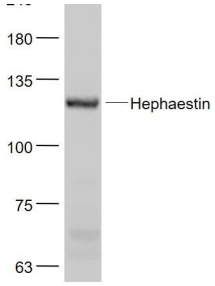
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Hephaestin
Immunogen:	KLH conjugated synthetic peptide derived from human Hephaestin: 21-120/1158 <Extracellular>
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat)
Predicted MW.:	128kDa
Subcellular Location:	The cell membrane
Background:	Hephaestin is a single-pass type I membrane protein that belongs to the multicopper oxidase family of proteins. Hephaestin, a copper-dependant ferroxidase protein, is crucial for iron exiting intestinal enterocytes into the circulation. It mediates the movement of iron across the basolateral membrane in conjunction with ferroportin 1. This is an important link between iron and copper metabolism in mammalian systems, as copper deficiency leads to reduced hephaestin and reduced iron absorption resulting in anemia. Hephaestin can bind six copper ions per monomer and is regulated by the homeobox transcription factor CDX2. Increased levels of iron leads to an increase in CDX2 expression and thus Hephaestin. Hephaestin is primarily detected in the intestine, but is also expressed in colon, breast, bone trabecural cells and fibroblasts. **Function:** May function as a ferroxidase for ferrous (II) to ferric ion (III) conversion and may be involved in copper transport and homeostasis.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

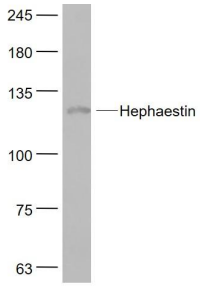
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	Implicated in iron homeostasis and may mediate iron efflux associated to ferroportin 1. **Subcellular Location:** Membrane; Single-pass type I membrane protein (Potential). **Tissue Specificity:** Detected in breast, colon, bone trabecular cells and fibroblasts. **Similarity:** Belongs to the multicopper oxidase family. Contains 6 plastocyanin-like domains. **Database links:** **Entrez Gene:** 491926 Dog **Entrez Gene:** 9843 Human **Entrez Gene:** 117240 Rat Omim: 300167 Human **SwissProt:** Q9BQS7 Human **SwissProt:** Q920H8 Rat **Unigene:** 31720 Human **Unigene:** 43849 Rat

[VALIDATION IMAGES]



Sample:
K562(Human) Cell Lysate at 30 ug
Primary: Anti- Hephaestin (SL15458R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 128 kD
Observed band size: 128 kD



Sample:
Uterus (Mouse) Lysate at 40 ug
Primary: Anti- Hephaestin (SL15458R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 128 kD
Observed band size: 128 kD

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