bs-15458R **[Primary Antibody]**

Hephaestin Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 9843 **SWISS:** Q9BQS7

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°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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.

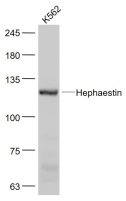
Applications: **WB** (1:500-2000)

Reactivity: Human, Mouse (predicted: Rat)

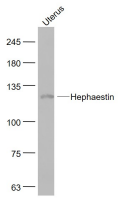
Predicted MW.: 128 kDa

Subcellular Location: Cell membrane

VALIDATION IMAGES



Sample: K562(Human) Cell Lysate at 30 ug Primary: Anti- Hephaestin (bs-15458R) 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 (bs-15458R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 128 kD Observed band size: 128 kD

SELECTED CITATIONS

- **[IF=5.008]** Rychtarcikova, Zuzana, et al. "Tumor-initiating cells of breast and prostate origin show alterations in the expression of genes related to iron metabolism." Oncotarget (2016). WB ;="Human". 28031527