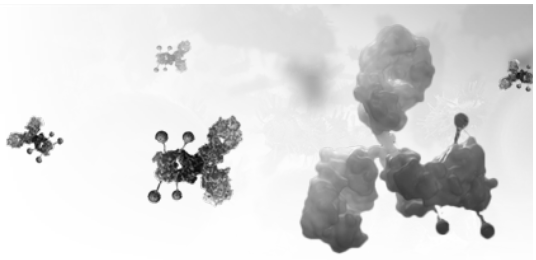

Rabbit Anti-Human HAMP Monoclonal Antibody, clone 2144G (CABT-Z164R)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects human Hepcidin in direct ELISAs
Immunogen	Synthetic peptide containing human Hepcidin.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Clone	2144G
Purification	Protein A or G purified
Conjugate	Unconjugated
Applications	ELISA (Det) We recommend the following for sandwich ELISA (Capture - Detection): CABT-Z163R - CABT-Z164R
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Format	Lyophilized
Size	100 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Preservative	None
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

	12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.
Ship	Wet ice

BACKGROUND

Introduction	Hepcidin, also known as Liver Expressed Antimicrobial Protein 1 (LEAP-1), is a peptide hormone that is involved in the regulation of iron metabolism. It is synthesized as a preprohormone that is cleaved intracellularly and secreted as a mature 25 amino acid peptide. Hepcidin contains eight cysteine residues that form four disulfide bonds which appear to be important for stability in biological fluids. It is predominantly expressed, processed, and secreted by hepatocytes. Hepcidin expression is positively regulated by inflammation via IL-6/JAK2/ STAT3 signaling, endoplasmic reticulum stress, and BMP-6. BMP-6-dependent Hepcidin induction involves RGM-C/Hemojuvelin, which acts as a co-receptor for BMP-6. Conversely, Hepcidin expression is negatively regulated by MMP-15/MT2-MMP and multiple erythropoietic stimuli, including anemia, hypoxia, and Erythropoietin. MMP-15 downregulates Hepcidin expression by interacting with and cleaving RGM-C. Hepcidin was originally identified in human blood and urine as an antimicrobial peptide. It has since been shown to regulate iron metabolism. Hepcidin binds the cellular iron exporter Ferroportin, and this interaction results in Ubiquitin-mediated degradation of both Hepcidin and Ferroportin. Degradation of Ferroportin results in reduced iron release from macrophages, hepatocytes, and duodenal enterocytes, suggesting that Hepcidin may be an effector of inflammatory hypoferremia.
Keywords	HAMP;HEPC;hepcidin antimicrobial peptide;Hepcidin;HEPCPutative liver tumor regressor;HFE2B;HFE2Bhepcidin;LEAP1;LEAP-1;LEAP1PLTR;Liver-expressed antimicrobial peptide 1;PLTR

GENE INFORMATION

Gene Name	HAMP
Entrez Gene ID	57817
UniProt ID	P81172

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