

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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- Gefahrgutzuschlag
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# Anti-Hepcidin-25 [19D12] Standard Size Ab03570-3.0

This chimeric mouse antibody was made using the variable domain sequences of the original Human IgG2 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Mouse IgG2b, Lambda

Clone Number: 19D12

Alternative Name(s) of Target: HAMP; hHepc; HEPC; LEAP1; LEAP-1; Hepcidin; Liver-expressed

antimicrobial peptide 1

**UniProt Accession Number of Target Protein:** P81172

Published Application(s): ELISA, IHC
Published Species Reactivity: Human

**Immunogen:** The original antibody was generated by immunizing Xenomouse<sup>™</sup> IgG2κλ and IgG4κλ with KLH-conjugated human hepcidin peptide 'DTHFPICIFCCGCCHRSKCGMCCKT'.

**Specificity:** This antibody is specific for amino acids 'DTHFPICIFCCGCCHRSKCGMCCKT' of human hepcidin-25 and does not cross react with murine hepcidin-25. Hepcidin is a an iron-regulating peptide hormone made in the liver. Hepcidin is a cationic, cysteine-rich and tightly folded peptide stabilized by 4 disulfide bonds that plays a major role in innate immunity and iron homeostasis. It controls the delivery of iron to blood plasma from intestinal cells absorbing iron, from erythrocyte-recycling macrophages, and from iron-storing hepatocytes. Hepcidin acts by binding to and inactivating the sole cellular iron exporter, ferroprotein, which delivers iron to plasma from all iron-transporting cells.

**Application Notes:** The original IgG antibody binds human hepcidin-25 with a binding affinity of Kd= 340 pM (PMID: 23945155). This antibody can be used in combination with another anti-hepcidin antibody 19D12 for detection of human hepcidin in human serum using a sandwich ELISA. 19D12 was used as a capture antibody and 23F11 was used for detection. The limit of sensitivity for the assay was 30 pg/mL (PMID: 23945155). This antibody was also used for immunohistochemical analysis of formalin-fixed, paraffinembedded sections of prostrate cancer tissues (PMID: 25858146). This antibody was also used to block hepcidin in a study to confirm the functionality of hepcidin in breast tumor spheroids. As expected, blockade of hepcidin increased ferroprotein, indicating that hepcidin synthesized by these cells functions in an autocrine fashion and exerts its expected biological activity (PMID: 29695834).

**Antibody First Published in:** Cooke et al. A fully human anti-hepcidin antibody modulates iron metabolism in both mice and nonhuman primates. Blood. 2013 Oct 24;122(17):3054-61. PMID:23945155 **Note on publication:** Describes the development of a fully human antibody for use as a potential

therapeutic to treat anemia of inflammation (AI) in patients with kidney disease or cancer.

#### **Product Form**

**Size:** 100 µg Purified antibody.

**Purification:** Protein A affinity purified **Supplied In:** PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -

20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.