

## Anti-Hepcidin-25 [23F11] Bulk Size Ab03569-3.3-BT

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

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, Fc Silent™, Kappa

**Clone Number:** 23F11

**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

**Published Species Reactivity:** Human

**Immunogen:** The original antibody was generated by immunizing Xenomouse™ 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  $K_d = 70$  pM (PMID: 19553669). 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).

**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:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. 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.