

## Hepcidin/HAMP Protein, Mouse, Recombinant (GST)

### General Information

Synonyms:	Hamp1;LEAP-1;PLTR;HFE2B;LEAP1;Hepc1;Hepc
Protein Construction:	Asp59-Thr83
Species:	Mouse
Expression Host:	E. coli
Accession:	Q9EQ21
Molecular Weight:	29.05 kDa (predicted) same as Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris-HCl, 150 mM NaCl, 2 mM DTT (pH 7.5). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Hepcidin, the main regulator of iron metabolism, is synthesized and released by hepatocytes in response to increased body iron concentration and inflammation. Deregulation of hepcidin expression is a common feature of genetic and acquired iron disorders: in Hereditary Hemochromatosis (HH) and iron-loading anemias low hepcidin causes iron overload, while in Iron Refractory Iron Deficiency Anemia (IRIDA) and anemia of inflammation (AI),

high hepcidin levels induce iron-restricted erythropoiesis.

Reference

Silvestri L, et al. Hepcidin and the BMP-SMAD pathway: An unexpected liaison. Vitam Horm. 2019;110:71-99. doi: 10.1016/bs.vh.2019.01.004. Epub 2019 Feb 10. PMID: 30798817.

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