

**DESCRIPTION**

**Source** Mouse myeloma cell line, NS0-derived human Hepassocin/FGL1 protein  
Leu23-Ile312, with a C-terminal 10-His tag  
Accession # BAB70690.1

**N-terminal Sequence Analysis** Leu23

**Structure / Form** Disulfide-linked homodimer

**Predicted Molecular Mass** 35 kDa

**SPECIFICATIONS**

**SDS-PAGE** 33-37 kDa, under reducing conditions

**Activity** Measured by its binding ability in a functional ELISA.  
When Recombinant Human LAG-3 Fc Chimera (Catalog # 2319-L3) is coated at 1 µg/mL (100 µL/well), the concentration of Human Hepassocin/FGL1 His-tag (Catalog # 10285-HE) that produces 50% of the optimal binding response is 0.05-0.4 µg/mL.

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Supplied as a 0.2 µm filtered solution in Tris, NaCl and Glycerol  
See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

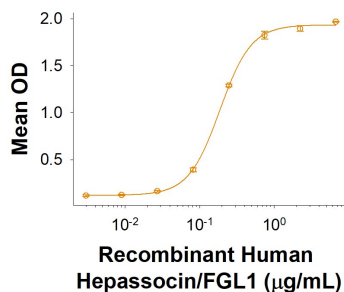
**Shipping** The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after opening.
- 3 months, -20 to -70 °C under sterile conditions after opening.

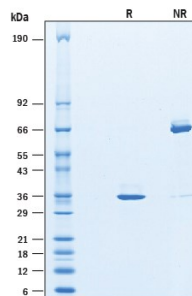
**DATA**

**Binding Activity**



When Recombinant Human LAG-3 Fc Chimera (Catalog # 2319-L3) is coated at 1 µg/mL (100 µL/well), the concentration of Human Hepassocin/FGL1 His-tag (Catalog # 10285-HE) that produces 50% of the optimal binding response is 0.05-0.4 µg/mL.

**SDS-PAGE**



2 µg/lane of Recombinant Human Hepassocin/FGL1 His-tag (Catalog # 10285-HE) was resolved with SDS-PAGE under reducing (R) and non reducing (NR) conditions and visualized by Coomassie® Blue staining, showing single bands at 33-37 kDa and 65-75 kDa, respectively.

**BACKGROUND**

Hepassocin, also known as hepatocyte-derived fibrinogen-related protein 1 (HFREP-1) and Fibrinogen-Like Protein 1 (FGL1) (1), is a liver-specific secreted protein belonging to the fibrinogen superfamily, whose members share a fibrinogen domain at their C-termini (2). Human Hepassocin/FGL1 is a secreted homodimer consisting of 312 amino acids (aa) with a 22 aa signal sequence and a 290 aa mature protein (3). Mouse and rat Hepassocin/FGL1 share approximately 84% and 83% amino acid identity with human Hepassocin/FGL1, respectively. Human Hepassocin/FGL1 binds LAG-3 through its fibrinogen-like domain independently of MHC class II (4). Hepassocin/FGL1 inhibits antigen-specific T cell activation, with its elevated presence in plasma of cancer patients indicating poor prognoses (4). Other than this role in cancer progression, Hepassocin/FGL1 also has restorative function for liver cells, as it is upregulated during liver regeneration following partial hepatectomy (5), and stimulates proliferation of hepatocytes in vivo and improves prognoses with fulminant hepatic failure in rats (6). Its expression is regulated in Hep G2 cells by interleukin-6 (IL-6) and is found in the serum in both bound and unbound states as an acute phase reactant (7).

**References:**

1. Yamamoto, T. *et al.* (1993) *Biochem. Biophys. Res. Commun.* **2**:681.
2. Zhang, S.M. *et al.* (2008) *Innate Immun.* **14**:175.
3. Hara, H. *et al.* (2001) *Biochim. Biophys. Acta.* **1520**:45.
4. Wang, J. *et al.* (2019) *Cell.* **176**:334.
5. Yu, HT. *et al.* (2009) *J. Biol. Chem.* **284**:13335.
6. Li, C.Y. *et al.* (2010) *Gut.* **59**:817.
7. Liu, Z. and C. Ukomadu. (2008) *Biochem. Biophys. Res. Commun.* **365**:729.