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# **Recombinant Human Hemojuvelin/HFE2 Protein (His Tag)**

Catalog No. PKSH031623

Note: Centrifuge before opening to ensure complete recovery of vial contents.

## **Description**

Synonyms HFE2A;HJV;JH;RGMC

Species Human

**Expression Host** Baculovirus-Insect Cells

SequenceMet 1-Ser 399AccessionQ6ZVN8-1Calculated Molecular Weight40 kDa

**Observed molecular weight** 20&34&44 kDa

Tag C-His

**Bioactivity** Not validated for activity

### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from sterile PBS, 500mM NaCl, pH 7.0, 10% glycerol

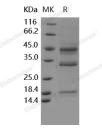
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



> 95 % as determined by reducing SDS-PAGE.

# **Background**

Hemojuvelin, also known as HFE2, is a membrane-bound and soluble protein which belongs to the repulsive guidance molecule (RGM) family. It is known that RGMs function through Neogenin, a homologue of the Netrin receptor deleted

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in colon cancer. In mammals, RGM family consists of three glycoproteins which have discrete expression patterns and functions (RGM-A, RGM-B, and RGM-C). Hemojuvelin is expressed in adult and fetal liver, heart, and skeletal muscle. Hemojuvelin acts as a bone morphogenetic protein (BMP) coreceptor. Enhancement of BMP signaling regulates hepcidin (HAMP) expression and iron metabolism. It plays a key role in iron metabolism. Hemojuvelin represents the cellular receptor for hepcidin. It may be a component of the signaling pathway which activates hepcidin or it may act as a modulator of hepcidin expression. Defects in hemojuvelin are the cause of hemochromatosis type 2A, also known as juvenile hemochromatosis (JH).

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