**Proteins** 



# **Product** Data Sheet

## LIV-1/SLC39A6 Protein, Human (Baculovirus, His)

Cat. No.: HY-P700463

Synonyms: SLC39A6; LIV-1; ZIP6; Zinc transporter ZIP6; ZIP-6

Species:

Sf9 insect cells Source: Q13433 (F29-W325) Accession:

Gene ID: 25800 35.0 kDa Molecular Weight:

#### **PROPERTIES**

| AA Sec | uence |
|--------|-------|
|--------|-------|

FPQTTEKISP NWESGINVDL AISTRQYHLQ QLFYRYGENN SLSVEGFRKL LQNIGIDKIK RIHIHHDHDH HSDHEHHSDH ERHSDHEHHS EHEHHSDHDH HSHHNHAASG KNKRKALCPD HDSDSSGKDP PEHASGRRNV KDSVSASEVT RNSQGKGAHR SSSTPPSVTS STVYNTVSEG THFLETIETP RPGKLFPKDV KSRVSRLAGR KTNESVSEPR KGFMYSRNTN ENPQECFNAS KLLTSHGMGI QVPLNATEFN YLCPAIINQI DARSCLIHTS

EKKAEIPPKT YSLQIAW

**Appearance** 

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0

**Endotoxin Level** 

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100  $\mu$ g/mL in ddH<sub>2</sub>O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping** 

Room temperature in continental US; may vary elsewhere.

### **DESCRIPTION**

### Background

LIV-1/SLC39A6, a zinc-influx transporter, intricately regulates zinc homeostasis and contributes to the induction of epithelial-to-mesenchymal transition (EMT). Functionally, when forming a heterodimer with SLC39A10, this complex mediates cellular zinc uptake, serving as a pivotal trigger for EMT. The SLC39A10-SLC39A6 heterodimer not only controls NCAM1 phosphorylation but also influences its integration into focal adhesion complexes during EMT. The zinc influx facilitated by this heterodimeric complex plays a crucial role in inactivating GSK3B, leading to nuclear accumulation of

unphosphorylated SNAI1, which subsequently down-regulates adherence genes like CDH1, thereby promoting loss of cell adherence. Beyond its involvement in EMT, the SLC39A10-SLC39A6 heterodimer plays a fundamental role in initiating mitosis by importing zinc into cells, triggering a pathway that culminates in the onset of mitosis. Additionally, this transporter complex contributes to T-cell receptor signaling regulation and facilitates proper zinc influx for meiotic progression during the oocyte-to-egg transition.

Caution: Product has not been fully validated for medical applications. For research use only.

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