

LIV-1/SLC39A6 Protein, Human (HEK293, His)

Cat. No.:	HY-P78749
Synonyms:	SLC39A6; LIV-1; ZIP6; Zinc transporter ZIP6; ZIP-6
Species:	Human
Source:	HEK293
Accession:	Q13433 (F29-W325)
Gene ID:	25800
Molecular Weight:	50-70 kDa

PROPERTIES

Biological Activity	Immobilized Human LIV-1 His at 1 µg/mL (100 µL/well) can bind Anti-LIV-1 antibody Human IgG1 with a linear range of 0.2-9 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized a 0.22 µm filtered solution of PBS, 6% Trehalose, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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 SNAIL1, 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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