

Intelectin-1/ITLN1 Protein, Human (N-His, C-myc)

Cat. No.:	HY-P701099
Synonyms:	ITLN1; intelectin 1 (galactofuranose binding); intelectin-1; FLJ20022; hIntL; HL 1; ITLN; LFR; ITLN-1; endothelial lectin HL-1; galactofuranose-binding lectin; intestinal lactoferrin receptor; HL1; HL-1; INTL; omentin;
Species:	Human
Source:	E. coli
Accession:	Q8WWA0 (T19-S298)
Gene ID:	55600
Molecular Weight:	Approximately 38.6 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ 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	<p>The Intelectin-1/ITLN1 protein operates as a lectin with a specific affinity for microbial carbohydrate chains in a calcium-dependent manner. It recognizes microbial glycans containing a terminal acyclic 1,2-diol moiety, such as beta-linked D-galactofuranose (beta-Galf), D-phosphoglycerol-modified glycans, D-glycero-D-talo-oct-2-ulosonic acid (KO), and 3-deoxy-D-manno-oct-2-ulosonic acid (KDO). This lectin binds to glycans found in both Gram-positive and Gram-negative bacteria, including <i>K. pneumoniae</i>, <i>S. pneumoniae</i>, <i>Y. pestis</i>, <i>P. mirabilis</i>, and <i>P. vulgaris</i>, while showing no affinity for human glycans. Likely contributing to the defense system against microorganisms, Intelectin-1/ITLN1 may function as an adipokine with a potential role in glucose uptake regulation and insulin-stimulated glucose uptake in adipocytes. It enhances AKT phosphorylation, both in the absence and presence of insulin. Additionally, Intelectin-1/ITLN1 may interact with lactoferrin/LTF, increasing its uptake and potentially playing a role in iron absorption. The protein forms homotrimers through disulfide linkages and may interact with lactoferrin/LTF.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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