

Cadherin 17/CDH17 Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	cadherin 17, LI cadherin (liver-intestine)
Protein Construction:	Gln23-Thr784
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	XP_005563762.2
Molecular Weight:	85.57 kDa (predicted); 95-115 kDa (reducing conditions)

QC Testing

Biological Activity:	Immobilized Cynomolgus CDH17, His Tag at 1 µg/ml (100 µl/well) on the plate. Dose response curve for Anti-CDH17 Antibody, hFc Tag with the EC50 of 2.2 ng/ml determined by ELISA Loaded Anti-CDH17 Ab., hFc-Avi Tag on ProA-Biosensor can bind Cynomolgus CDH17, His Tag with an affinity constant of 9.78 nM as determined in BLI assay (Gator® Prime).
Purity:	≥ 90 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Cadherin-17 or LI-cadherin is a member of the cadherin superfamily, genes encoding calcium-dependent, membrane-associated glycoproteins. Cadherin-17/LI-cadherin is a cadherin-like protein consisting of an

extracellular region, 7 cadherin domains, and a transmembrane region but lacking the conserved cytoplasmic domain. The protein is a component of the gastrointestinal tract and pancreatic ducts, acting as an intestinal proton-dependent peptide transporter in the first step in oral absorption of many medically important peptide-based drugs. The protein may also play a role in the morphological organization of liver and intestine. Alternative splicing of the encoding gene results in multiple transcript variants. Cadherin-17/LI-cadherin preferentially interact with themselves in a homophilic manner in connecting cells. Cadherin-17 may thus contribute to the sorting of heterogeneous cell types and have a role in the morphological organization of liver and intestine. It's also involved in intestinal peptide transport. Experiments have reported the association between Cadherin-17/LI-cadherin and gastric cancer. Cadherin-17/LI-cadherin expression was detected in 63/94 of gastric adenocarcinomas in addition to intestinal metaplasia. The expression of Cadherin-17 tended to be associated with intestinal type carcinoma, and carcinomas with Cadherin-17 expression was significantly more frequent in advanced stage cases than in early stage. Cadherin-17 is also a useful immunohistochemical marker for diagnosis of adenocarcinomas of the digestive system.

Reference

- Liu LX, et al. (2009) Targeting cadherin-17 inactivates Wnt signaling and inhibits tumor growth in liver carcinoma. *Hepatology*. 50(5): 1453-63.
- Ito R, et al. (2005) Clinicopathological significant and prognostic influence of cadherin-17 expression in gastric cancer. *Virchows Arch*. 447(4): 717-22.
- Horsfield J, et al. (2002) Cadherin-17 is required to maintain pronephric duct integrity during zebrafish development. *Mech Dev*. 115(1-2): 15-26.

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