Data Sheet (Cat.No.TMPY-02919)

TargetMol

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

General Information

Synonyms:	cadherin 17, LI cadherin (liver-intestine)
Protein Construction:	A DNA sequence encoding the rat CDH17 (P55281) (Met1-Met786) was expressed, fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Gln 22
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	P55281
Molecular Weight:	86.4 kDa (predicted); 118 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 81 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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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