

Recombinant Human CLDN16, GST-tagged

Cat. No. CLDN16-11288H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CLDN16 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-150a.a.
Description	Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell sheets, forming continuous seals around cells and serving as a physical barrier to prevent solutes and water from passing freely through the paracellular space. These junctions are comprised of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet. The protein encoded by this gene, a member of the claudin family, is an integral membrane protein and a component of tight junction strands. It is found primarily in the kidneys, specifically in the thick ascending limb of Henle, where it acts as either an intercellular pore or ion concentration sensor to regulate the paracellular resorption of magnesium ions. Defects in this gene are a cause of primary hypomagnesemia, which is characterized by massive renal magnesium wasting with hypomagnesemia and hypercalciuria, resulting in nephrocalcinosis and renal failure. This gene and the CLDN1 gene are clustered on chromosome 3q28.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing

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cycles.

Storage Buffer

1M PBS (58mM Na₂HPO₄, 17mM NaH₂PO₄, 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

GENE INFORMATION

Gene Name

CLDN16 claudin 16 [Homo sapiens]

Official Symbol

CLDN16

Synonyms

CLDN16; claudin 16; claudin-16; HOMG3; hypomagnesemia 3; with hypercalciuria and nephrocalcinosis; paracellin 1; PCLN1; PCLN-1; paracellin-1; hypomagnesemia 3, with hypercalciuria and nephrocalcinosis;

Gene ID

10686

mRNA Refseq

NM_006580

Protein Refseq

NP_006571

MIM

603959

UniProt ID

Q9Y5I7

Chromosome Location

3q28

Pathway

Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem; Cell junction organization, organism-specific biosystem; Cell-Cell communication, organism-specific biosystem; Cell-cell

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junction organization, organism-specific biosystem; Hepatitis C, organism-specific biosystem; Hepatitis C, conserved biosystem;

Function

identical protein binding; magnesium ion transmembrane transporter activity; structural molecule activity;

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