

Product datasheet

Recombinant Human E Cadherin protein ab235682

1 Image

Description

Product name Recombinant Human E Cadherin protein

Purity > 90 % SDS-PAGE.

Expression system Escherichia coli

Accession [P12830](#)

Protein length Protein fragment

Animal free No

Nature Recombinant

Species Human

Sequence

```
DWVIPPISCPENEKGPFPKNLVQIKSNKDKEGKVFYSITGQ
GADTPPVGV
FIERETGWLKVTEPLDRERIATYTLFSHAVSSNGNAVEDP
MEILITVD
QNDNKPEFTQEVEFKGSVMEGALPGTSVMEVTATDADDD
VNTYNAAIAYTI
LSQDPELPDKNMFTINRNTGVISVVTGLDRESFPTYTLVV
QAADLQGEG
LSTTATAVITVTDNDNPPIFNPTYKQQVPENEANVVITL
KVTDADAP
NTPAWEAVYILNDDGGQFVVTNPVNNDGILKTAKGLDF
EAKQQYLHV
AVTNVVPFEVSLTTSTATVTVLDVNEAPIFVPEKRVE
VSEDFGVGQE
ITSYTAQEPDTFMEQKITYRWRDTANWLEINPDTGAISTRA
ELDREDFE
HVKNSTYALIIATDNGSPVATGTGTLILLSDVNDNAIPEP
RTIFFCE
RNPKPQVINIIDADLPNTSPFTAELTHGASANWTIQYNDPT
QESIILKP
KMALEVGDYKINLKLMDNQNKDQVTTLEVSVCDCEGAAG
VCRKAQPVEAG LQI
```

Predicted molecular weight 64 kDa including tags

Amino acids 155 to 707

Tags His tag N-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab235682** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

Constituents: Tris buffer, 50% Glycerol (glycerin, glycerine)

General Info

Function Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. CDH1 is involved in mechanisms regulating cell-cell adhesions, mobility and proliferation of epithelial cells. Has a potent invasive suppressor role. It is a ligand for integrin alpha-E/beta-7.

E-Cad/CTF2 promotes non-amyloidogenic degradation of Abeta precursors. Has a strong inhibitory effect on APP C99 and C83 production.

Tissue specificity Non-neural epithelial tissues.

Involvement in disease Defects in CDH1 are the cause of hereditary diffuse gastric cancer (HDGC) [MIM:137215]. An autosomal dominant cancer predisposition syndrome with increased susceptibility to diffuse gastric cancer. Diffuse gastric cancer is a malignant disease characterized by poorly differentiated infiltrating lesions resulting in thickening of the stomach. Malignant tumors start in the stomach, can spread to the esophagus or the small intestine, and can extend through the stomach wall to nearby lymph nodes and organs. It also can metastasize to other parts of the body. Note=Heterozygous germline mutations CDH1 are responsible for familial cases of diffuse gastric cancer. Somatic mutations in the has also been found in patients with sporadic diffuse gastric cancer and lobular breast cancer.

Defects in CDH1 are a cause of susceptibility to endometrial cancer (ENDMC) [MIM:608089].

Defects in CDH1 are a cause of susceptibility to ovarian cancer (OC) [MIM:167000]. Ovarian cancer common malignancy originating from ovarian tissue. Although many histologic types of ovarian neoplasms have been described, epithelial ovarian carcinoma is the most common form. Ovarian cancers are often asymptomatic and the recognized signs and symptoms, even of late-stage disease, are vague. Consequently, most patients are diagnosed with advanced disease.

Sequence similarities Contains 5 cadherin domains.

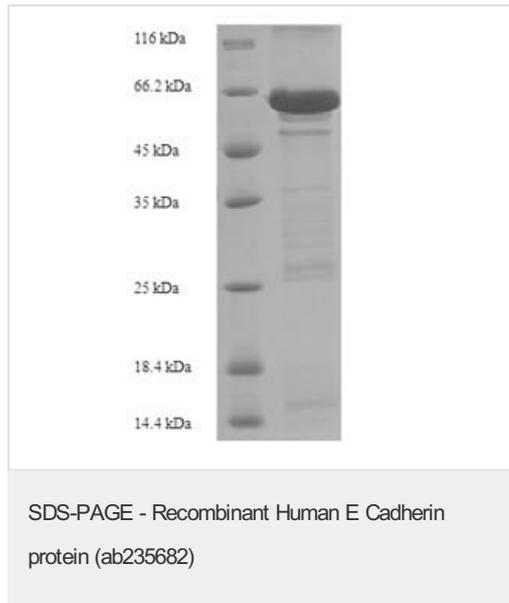
Post-translational modifications During apoptosis or with calcium influx, cleaved by a membrane-bound metalloproteinase (ADAM10), PS1/gamma-secretase and caspase-3 to produce fragments of about 38 kDa (E-CAD/CTF1), 33 kDa (E-CAD/CTF2) and 29 kDa (E-CAD/CTF3), respectively. Processing by the metalloproteinase, induced by calcium influx, causes disruption of cell-cell adhesion and the subsequent release of beta-catenin into the cytoplasm. The residual membrane-tethered cleavage product is rapidly degraded via an intracellular proteolytic pathway. Cleavage by caspase-3 releases the cytoplasmic tail resulting in disintegration of the actin microfilament

system. The gamma-secretase-mediated cleavage promotes disassembly of adherens junctions.

Cellular localization

Cell junction. Cell membrane. Endosome. Golgi apparatus > trans-Golgi network. Colocalizes with DLGAP5 at sites of cell-cell contact in intestinal epithelial cells. Anchored to actin microfilaments through association with alpha-, beta- and gamma-catenin. Sequential proteolysis induced by apoptosis or calcium influx, results in translocation from sites of cell-cell contact to the cytoplasm. Colocalizes with RAB11A endosomes during its transport from the Golgi apparatus to the plasma membrane.

Images



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) analysis with 5% enrichment gel and 15% separation gel of ab235682.

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