

Human E-Cadherin / CDH1 / E-cad / CD324 Protein (Fc Tag)

Catalog Number: 10204-H02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

Arc-1; CD324; CDH1; CDHE; E-cad; E-Cadherin; ECAD; LCAM; UVO

Protein Construction:

A DNA sequence encoding the human E-Cad (P12830-1) (Met1-Ile707) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of MCF-7 human breast adenocarcinoma cells. When cells are added to E-Cad coated plates (5 µg/mL, 100 µL/well), > 30% will adhere specifically after 90 minutes at 37 °C.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Predicted N terminal: Gln 23 & Asp 155

Molecular Mass:

The recombinant human E-Cad/Fc is a disulfide-linked homodimer. The reduced monomer comprises 791 amino acids and has a predicted molecular mass of 87.1 kDa. The apparent molecular mass of the protein is approximately 116-126 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

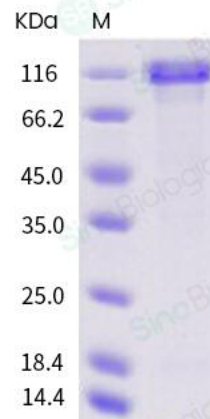
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Cadherins are calcium-dependent cell adhesion proteins which preferentially interact with themselves in a homophilic manner in connecting cells, and thus may contribute to the sorting of heterogeneous cell type. E-cadherin (E-Cad), also known as CDH1 and CD324, is a calcium-dependent cell adhesion molecule the intact function of which is crucial for the establishment and maintenance of epithelial tissue polarity and structural integrity. Mutations in CDH1 occur in diffuse type gastric cancer, lobular breast cancer, and endometrial cancer. In human cancers, partial or complete loss of E-cadherin expression correlates with malignancy. During apoptosis or with calcium influx, E-Cad is cleaved by the metalloproteinase to produce fragments of about 38 kDa (E-CAD/CTF1), 33 kDa (E-CAD/CTF2) and 29 kDa (E-CAD/CTF3), respectively. E-Cad has been identified as a potent invasive suppressor, as downregulation of E-cadherin expression is involved in dysfunction of the cell-cell adhesion system, and often correlates with strong invasive potential and poor prognosis of human carcinomas.

References

1. Wang HD, *et al.* (2004) CDH1 germline mutation in hereditary gastric carcinoma. *World J Gastroenterol.* 10(21): 3088-93.
2. Masterson J, *et al.* (2007) Posttranslational truncation of E-cadherin and significance for tumour progression. *Cells Tissues Organs.* 185(1-3): 175-9.
3. Mrgineanu E, *et al.* (2008) Correlation between E-cadherin abnormal expressions in different types of cancer and the process of metastasis. *Rev Med Chir Soc Med Nat Iasi.* 112(2): 432-6.

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