**Proteins** 

# **Screening Libraries**

# **Product** Data Sheet

# EpCAM/TROP1 Protein, Human (HEK293, His)

Cat. No.: HY-P70154

Synonyms: rHuEpithelial cell adhesion molecule/EpCAM, His; Epithelial Cell Adhesion Molecule; Ep-CAM;

> Adenocarcinoma-Associated Antigen; Cell Surface Glycoprotein Trop-1; Epithelial Cell Surface Antigen; Epithelial Glycoprotein; EGP; Epithelial Glycoprotein 314; EGP314; hEGP314; KSA;

Tumor-Associated Calcium Signa

Species: Human Source: **HEK293** 

Accession: AAH14785.1 (Q24-K265)

Gene ID: 4072

Molecular Weight: approximately 34-42 kDa

# **PROPERTIES**

AA:	Seq	uer	ıce
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QEECVCENYK RQCQCTSVGA LAVNCFVNNN QNTVICSKLA AKCLVMKAEM NGSKLGRRAK PEGALQNNDG LYDPDCDESG LFKAKOCNGT SMCWCVNTAG VRRTDKDTEI TCSERVRTYW IIIELKHKAR EKPYDSKSLR TALQKEITTR YQLDPKFITS ILYENNVITI DLVQNSSQKT QNDVDIADVA YYFEKDVKGE SLFHSKKMDL TVNGEQLDLD PGQTLIYYVD EKAPEFSMQG

LK

#### **Biological Activity**

Measured by the ability of the immobilized protein to support the adhesion of the L929 cells mouse fibroblast cell line. The  $ED_{50}$  for this effect is 0.7677 µg/mL, corresponding to a specific activity is 1.3×10<sup>3</sup> units/mg.

#### **Appearance**

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2-7.4.

#### **Endotoxin Level**

<1 EU/µg, determined by LAL method.

# Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

## Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

## **Shipping**

Room temperature in continental US; may vary elsewhere.

### **DESCRIPTION**

**Background** 

The EpCAM/TROP1 Protein emerges as a pivotal entity, potentially functioning as a physical homophilic interaction

molecule that fosters direct contact between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium, thereby contributing to the establishment of an immunological barrier as the primary defense against mucosal infections. Beyond its role in mucosal immunity, this protein plays a significant part in the proliferation and differentiation of embryonic stem cells. It further exhibits regulatory influence by up-regulating the expression of FABP5, MYC, and cyclins A and E, implicating EpCAM/TROP1 in the modulation of key cellular processes. Its monomeric nature and interaction with phosphorylated CLDN7 underscore the intricate molecular interactions involved, providing insights into the diverse functions of this protein in cellular physiology.

Caution: Product has not been fully validated for medical applications. For research use only.

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Page 2 of 2 www.MedChemExpress.com