

Animal-Free EpCAM/TROP1 Protein, Human (His)

Cat. No.:	HY-P700037AF
Synonyms:	Epithelial cell adhesion molecule; Ep-CAM; EGP; KSA; CD326; TROP1
Species:	Human
Source:	E. coli
Accession:	P16422 (Q24-K265)
Gene ID:	4072
Molecular Weight:	Approximately 28.36 kDa

PROPERTIES

AA Sequence	<p> M Q E E C V C E N Y K L A V N C F V N N N R Q C Q C T S V G A Q N T V I C S K L A A K C L V M K A E M N G S K L G R R A K P E G A L Q N N D G L Y D P D C D E S G L F K A K Q C N G T S M C W C V N T A G V R R T D K D T E I T C S E R V R T Y W I I I E L K H K A R E K P Y D S K S L R T A L Q K E I T T R Y Q L D P K F I T S I L Y E N N V I T I D L V Q N S S Q K T Q N D V D I A D V A Y Y F E K D V K G E S L F H S K K M D L T V N G E Q L D L D P G Q T L I Y Y V D E K A P E F S M Q G L K </p>
Biological Activity	Measure by the ability of the immobilized protein to support the adhesion of the 3T3 cells. The ED ₅₀ for this effect is 0.2-1.7 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
Endotoxin Level	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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
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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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