## Recombinant Human EpCAM/TROP-1 Protein(Fc Tag)

### Catalog Number: PDMH100314

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description			
Species	Human		
Source	Mammalian-derived Human EpCAM/TROP-1 proteins Gln24-Lys265, with an C-		
	terminal Fc		
Calculated MW	51.5 kDa		
Observed MW	60 kDa		
Accession	P16422		
Bio-activity	Not validated for activity		
Properties			
Purity	> 90% as determined by reducing SDS-PAGE.		
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method		
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80		
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of		
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 $\mu m$ filtered solution in PBS with 5% Trehalose and 5%		
	Mannitol.		
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of		
	0.5 mg/mL. Concentration is measured by UV-Vis.		

#### Data

kDa	м	R
80		
60		10
40	-	
30		
20		
12		

 $SDS\text{-}PAGE \ analysis \ of \ Human \ EpCAM/TROP-1 \ proteins \ , \\ 2\mu g/lane \ of \ Recombinant \ Human \ EpCAM/TROP-1 \ proteins \ was \ resolved \ with \ SDS\text{-}PAGE \ under \ reducing \ conditions \ , \\ showing \ bands \ at \ 60 \ KD$ 

#### Background

# **Elabscience**®

Epithelial Cell Adhesion Molecule (EpCAM), also known as GA733-2 antigen, is a type I transmembrane glycoprotein composed of an extracellular domain with two EGF-Like repeats and a cystenin-rich region, a transmembrane domain and a cytoplasmic domain. It modulates cell adhesion and proliferation. Its overexpression has been detected in many epithelial tumours and has been associated with high stage, high grade and a worse survival in some tumour types. EpCAM has been shown to function as a calcium-independent homophilic cell adhesion molecule that does not exhibit any obvious relationship to the four known cell adhesion molecule superfamilies. However, recent insights have revealed that EpCAM participates in not only cell adhesion, but also in proliferation, migration and differentiation of cells. In addition, recent study revealed that EpCAM is the Wnt-beta-catenin signaling target gene and may be used to facilitate prognosis. It has oncogenic potential and is activated by release of its intracellular domain , which can signal into the cell nucleus by engagement of elements of the wnt pathway.