

# Human EpCAM Protein (Fc & AVI Tag), Biotinylated

Catalog Number: 10694-H41H-B



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## General Information

### Gene Name Synonym:

DIAR5; EGP-2; EGP314; EGP40; ESA; HNPCC8; KS1/4; KSA; M4S1; MIC18; MK-1; TACSTD1; TROP-1; TROP1

### Protein Construction:

A DNA sequence encoding the human EPCAM (NP\_002345.2) (Met1-Lys265) was expressed with a c-terminal Fc region of human IgG1 tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.

**Source:** Human

**Expression Host:** Human Cells

## QC Testing

### Biotin/Protein Ratio:

0.7-1 as determined by the HABA assay.

**Purity:** > 90 % as determined by SDS-PAGE.

### Endotoxin:

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

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Gln 24

### Molecular Mass:

The recombinant human EPCAM consists of 495 amino acids and predicts a molecular mass of 56 kDa.

### 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

### Storage:

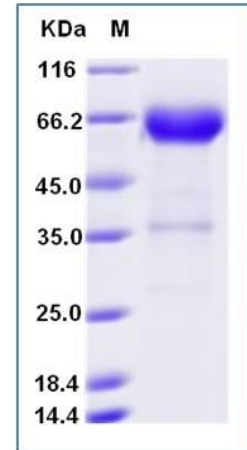
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

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 cysteine-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.

## References

1. Brunner A, *et al.* (2008) EpCAM is predominantly expressed in high grade and advanced stage urothelial carcinoma of the bladder. *J Clin Pathol.* 61(3):307-10.
2. Trzpis M, *et al.* (2008) EpCAM in morphogenesis. *Front Biosci.* 13: 5050-5.
3. Munz M, *et al.* (2009) The emerging role of EpCAM in cancer and stem cell signaling. *Cancer Res.* 69(14): 5627-9.

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