



Recombinant Protein Technical Manual

Recombinant Human EpCAM/TROP Protein (His & Avi Tag)

RPES0106

Product Data:

Product SKU: RPES0106

Size: 20µg

Species: Human

Expression host: Human Cells

Uniprot: P16422

Protein Information:

Molecular Mass: 30.2 kDa

AP Molecular Mass: 35-50 kDa

Tag: C-His-Avi

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

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

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Epithelial Cell Adhesion Molecule; Ep-CAM; Adenocarcinoma-Associated Antigen; Cell Surface Glycoprotein Trop; Epithelial Cell Surface Antigen; Epithelial Glycoprotein; EGP; Epithelial Glycoprotein 314; EGP314; hEGP314; KSA; Tumor-Associated Calcium Signal Transducer 1; CD326; EPCAM

Immunogen Information:

Sequence: Gln24-Lys265(Met115Thr)

Background:

Epithelial Cell Adhesion Molecule (EpCAM) is a signal type I transmembrane glycoprotein that belongs to the EPCAM family. EpCAM is composed of an extracellular domain with one thyroglobulin type domain, a transmembrane domain and a cytoplasmic domain. EpCAM is found on the surface of adenocarcinoma, but not on mesodermal or neural cell membranes. The EpCAM molecule has been shown to function as a homophilic Ca²⁺ independent adhesion molecule. It may act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium as an immunological barrier providing the first line of defense against infection. Defects in EPCAM are a cause of hereditary non-polyposis colorectal cancer type 8 (HNPCC8) and diarrhea type 5 (DIAR5). EpCAM plays a role in embryonic stem cells proliferation and differentiation; it up-regulates the expression of FABP5, MYC and Cyclin A and Cyclin E. It is highly and selectively expressed by undifferentiated embryonic stem cells.