# Data Sheet (Cat.No.TMPY-07028)

TargetMol

## EpCAM/TROP1 Protein, Human, Recombinant (His), AF488-Labeled

### General Information

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| Synonyms: | Ber-Ep4;EGP34;17-1A;KS1/4;MOC-31;TROP1;MH99;EGP40;DIAR5;CO-17A;MK-1;Ep-CAM;Ly74;EGP314;MOC31;EPCAM;HEA125;M1S2;MIC18;KSA;323/A3;M4S1;TACST-1;EGP-2;TACSTD1;LYNCH8;GA733-2;BerEp4;ESA;HNPCC8;CD326 |
| Protein Construction: | A DNA sequence encoding the Human EpCAM (NP_002345.1) (Met1-Lys265) was expressed with a polyhistidine tag at the C-terminus. The protein is site-specifically labeled with AF 488 (Excitation Max. = 495 nm, Emission Max. = 519 nm). |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | NP_002345.1 |
| Molecular Weight: | 30.9 kDa (predicted) |

### QC Testing

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| Biological Activity: | 1. Flow cytometric analysis of anti-EpCAM CAR expression. 293 cells were lentivirally transduced with anti-EpCAM CAR. Flow cytometric analysis was performed with a negative control protein and EpCAM/TROP1 Protein, Human, Recombinant (His), AF488-Labeled (Cat#TMPY-07028), respectively. Non-transduced 293 cells were used as a control.<br>2. Binding activity of PE-labeled EpCAM protein to PBMC cells. PBMC cells were stained with anti-CD3 antibody and EpCAM/TROP1 Protein, Human, Recombinant (His), AF488-Labeled (Cat#TMPY-07028) and detected by flow cytometry. PBMC cells stained with anti-CD3 antibody were used as a control. |
| Purity: | ≥ 90% as determined by SDS-PAGE. |
| Endotoxin: | < 1.0 EU per μg of the protein as determined by the LAL method |
| Formulation: | This product is Lyophilized from sterile PBS, pH 7.4. Please contact us for any concerns or special requirements. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA. |

### Preparation and Storage

Reconstitution:

Please refer to the lot-specific COA.

Stability & Storage:

Twelve months from date of receipt at -20℃ to -70℃ in lyophilized form and 3 months at -70℃ under sterile conditions after reconstitution. Protect from prolonged exposure to light and avoid repeated freeze-thaw cycles.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

## Protein Background

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.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy



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