Active Recombinant Mouse Epcam Protein, Fc-tagged, Alexa Fluor 647 conjugated

Cat. No. Epcam-191MAF647 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Alexa Fluor 647 conjugated recombinant Mouse Epcam(Gln24 & Arg81-Thr266) fused with Fc region of Mouse IgG2a at C-terminal was expressed in NS0.
Species	Mouse
Source	Mammalian Cells
ProteinLength	81-266 a.a.
Description	Epithelial Cellular Adhesion Molecule (EpCAM), also known as KS1/4, gp40, GA733-2, 17-1A, CD326 and TROP-1, is a 40 kDa transmembrane glycoprotein composed of a 243 amino acid (aa) extracellular domain with two epidermal-growth-factor-like (EGF-like) repeats, a 23 aa transmembrane domain, and a 26 aa cytoplasmic domain. Human and mouse EpCAM share 82% aa sequence identity. In mouse, EpCAM also shares 51% aa sequence homology with Trop-2. EpCAM is detected in basolateral cell membranes of all simple epithelia and expression has been found to increase in epithelia tissues during fetal development. EpCAM has been shown to function as a homophilic Ca2+ independent adhesion molecule, but it does not structurally resemble any of the four major families of cell adhesion molecules. Homophilic adhesion via EpCAM requires the interaction of both EGF-like repeats, with the first EGF-like repeat mediating reciprocal interaction between EpCAM molecules on opposing cells, while the second repeat is involved in lateral interaction of EpCAM. EpCAM has

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	been identified as a surface marker for pluripotent embryonic stem cells and is strongly associated with the maintenance of the undifferentiated state of ESCs. EpCAM is highly expressed on the surface of epithelial cancer cells including colon, stomach, lung, pancreas, prostate and breast.
Form	Lyophilized
Bio-activity	Measured by the ability of the immobilized protein to support the adhesion of the L Cells mouse fibroblast cell line. When 5 × 10^4 cells/well are added to Recombinant Mouse EpCAM/TROP-1 and Human Fibronectin coated plates, cell adhesion is enhanced in a dose dependent manner. The ED50 for this effect is typically 0.4-2.4 μg/mL.
Molecular Mass	Predicted Molecular Mass: 55 kDa SDS-PAGE: 58-75 kDa and 8 kDa
N-terminal Sequence Analysis	Arg 81 detected. Gln 24 inferred from enzymatic pyroglutamate treatment revealing Arg 25.
Endotoxin	< 0.1 EU/ μg of the protein by the LAL method.
Purity	> 95 % by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie Blue Staining.
Characteristic	Disulfide-linked homodimer Labeled with Alexa Fluor 647 via amines Excitation = 650 nm Emission = 668 nm
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

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	12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Concentration	500 μg/mL
Storage Buffer	Lyophilized from a 0.2 μm filtered solution in PBS.
Reconstitution	Reconstitute at 500 μg/mL in PBS.
Conjugation	Alexa Fluor 647

GENE INFORMATION

Gene Name	Epcam epithelial cell adhesion molecule [Mus musculus]
Official Symbol	Epcam
Synonyms	EPCAM; epithelial cell adhesion molecule; mEGP314; protein 289A; Trop-1 protein; lymphocyte antigen 74; epithelial glycoprotein 314; panepithelial glycoprotein 314; tumor-associated calcium signal transducer 1; EGP; Ly74; gp40; CD326; EGP-2; TROP1; Egp314; Ep-CAM; Tacsd1; GA733-2; Tacstd1;
Gene ID	17075
mRNA Refseq	NM_008532
Protein Refseq	NP_032558
UniProt ID	Q99JW5

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