

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived EpCAM/TROP1 protein
Gln24-Lys265, with a C-terminal 6-His tag
Accession # NP_001035118.1

N-terminal Sequence Analysis Gln24; inferred from deblocking reaction revealing Lys25

Predicted Molecular Mass 28 kDa

SPECIFICATIONS

SDS-PAGE 30-43 kDa, under reducing conditions

Activity Measured by the ability of the immobilized protein to support the adhesion of the L Cells mouse fibroblast cell line.
The ED₅₀ for this effect is 0.3-1.5 µg/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

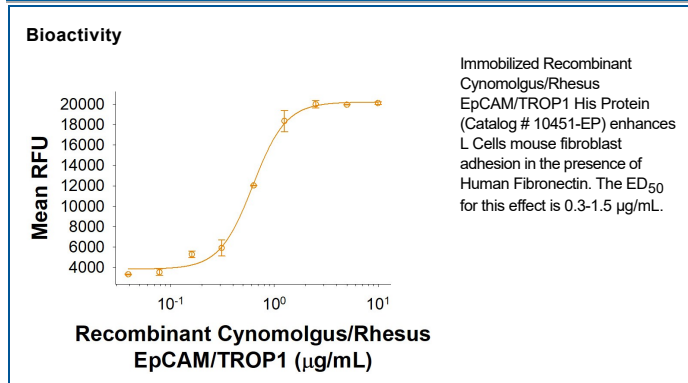
Reconstitution Reconstitute at 500 µg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

Epithelial Cellular Adhesion Molecule (EpCAM), also known as KS1/4, gp40, GA733-2, 17-1A, and TROP-1, is a 40 kDa transmembrane glycoprotein. Based on its similarity with human EpCAM, cynomolgus/rhesus EpCAM is predicted to consist of a 242 amino acid (aa) extracellular domain with two epidermal growth factor like (EGF like) repeats within the cysteine rich N terminal region, a 23 aa transmembrane domain, and a 26 aa cytoplasmic domain. Cynomolgus and human EpCAM share 93% aa sequence identity (1). During embryonic development, EpCAM is detected in fetal lung, kidney, liver, pancreas, skin, and germ cells. In adults, human EpCAM is expressed on basolateral cell membranes of all simple, pseudo-stratified, and transitional epithelia but not on normal squamous stratified epithelia, mesenchymal tissue, muscular tissue, neuro-endocrine tissue, or lymphoid tissue (2). It is additionally expressed on undifferentiated embryonic stem cells, thymocytes, and dendritic cells (3-5). It is up-regulated on actively proliferating epithelial tissues, during adult liver regeneration, and on many epithelial cell-derived carcinomas (2, 6). EpCAM functions as a homophilic cell adhesion molecule (7). It associates into tetramers and forms complexes in cis with Claudin-7, CD44v6, TSPAN8, CD9, Integrin alpha 3, and Annexin A1 (8-11) that can interfere with cell adhesion (12, 13). Proteolytic cleavage of EpCAM releases multiple fragments from the ECD as well as a cytoplasmic fragment that can regulate gene transcription (14-16).

References:

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