Data Sheet (Cat.No.TMPY-05484)

TargetMol

CD166/ALCAM Protein, Human, Recombinant (hFc)

General Information

Synonyms:	MEMD;activated leukocyte cell adhesion molecule;CD166
Protein Construction:	Trp28-Ala526
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q13740-1
Molecular Weight:	82.7 kDa (Predicted); 90-115 kDa (Due to glycosylation)

QC Testing

Biological Activity:	Immobilized Human CD6, His Tag at 1 μg/ml (100 μl/well) on the plate. Dose response curve for Human ALCAM, hFc Tag with the EC50 of 10.7 ng/ml determined by ELISA.Human ALCAM, hFc Tag captured on CM5 Chip via Protein A can bind Human CD6, His Tag with an affinity constant of 0.53 μM as determined in SPR assay (Biacore T200).
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Brain metastasis (BM) in non-small-cell lung cancer (NSCLC) has a very poor prognosis. Recent studies have demonstrated the importance of cell adhesion molecules in tumor metastasis.Elevated levels of ALCAM expression promote BM formation in NSCLC through increased tumor cell dissemination and interaction with the brain

endothelial cells. Therefore, ALCAM could be targeted to reduce the occurrence of BM.

Reference

Swart GW. (2002) Activated leukocyte cell adhesion molecule (CD166/ALCAM): developmental and mechanistic aspects of cell clustering and cell migration. Eur J Cell Biol. 81(6): 313-21.
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Jezierska A,et al.(2006) ALCAM/CD166 protects breast cancer cells against apoptosis and autophagy. Med Sci Monit. 12(8): BR263-73.
Kahlert C,et al.(2009) Increased expression of ALCAM/CD166 in pancreatic cancer is an independent prognostic marker for poor survival and early tumour relapse. Br J Cancer. 101(3): 457-64.