Datasheet for ABIN3137683

EpCAM Protein (AA 24-265) (His tag,AVI tag,Biotin)

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Overview

Quantity:	200 µg
Target:	EpCAM (EPCAM)
Protein Characteristics:	AA 24-265
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This EpCAM protein is labelled with His tag,AVI tag,Biotin.

Product Details

Sequence:	AA 24-265
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	**High Quality Authentic Human EPCAM Protein** • The production of this recombinant, biotinylated EPCAM protein is carried out using a proprietary expression platform. • As expression hosts, the human HEK293 cells have a variety of advantages compared to other cell types. • Most importantly, the proteins retain their authentic post-translational processing, which often translates into high bioactivity and stability. **High Bioactivity & Detection Sensitivity** • The bioactivity of biotinylated proteins is determined both by the structure of the protein itself, and by the way how biotinylation is performed. • For every single protein, multiple options of tags and biotinylation methods are tested and

Product Details

	the products are evaluated in a variety of binding assays. • Only those with the best performance are selected for production. **Low Batch-to-Batch Variation** • Products are routinely tested using rigorous quality control measures to ensure consistent performance. • Newly produced products are subjected to side-by-side comparison with our internal standard in a variety of assays. • Only those within an acceptable margin of difference are allowed to be released.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	EpCAM (EPCAM)
Alternative Name:	EPCAM (EPCAM Products)
Background:	EpCAM is also known as CO171A, EGP, EGP40,GA7332, KSA, M4S, MIC18, MK1, TROP1, hEGP2, and is a pan-epithelial differentiation antigen that is expressed on almost all carcinomas as 17-1A(mAb) antigen. Its constitutional function is being elucidated. It is intricately linked with the Cadherin-Catenin pathway and hence the fundamental WNT pathway responsible for intracellular signaling and polarity. The epithelial cell adhesion molecule (Ep-CAM) is known to express in most epithelial malignancies and was reported as a tumor marker or a candidate of molecular targeting therapy. Ep-CAM cross signaling with N-cadherin involves Pi3K, resulting in the abrogation of the cadherin adhesion complexes in epithelial cells was reported. And Epithelial cell adhesion molecule (Ep-CAM) recently received increased attention as a prognostic factor in breast cancer.
Molecular Weight:	30.0 kDa

Application Details

Comment:	Ready-to-use AvitagTM biotinylated protein: The product is exclusively produced using the AvitagTM technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.

Application Details

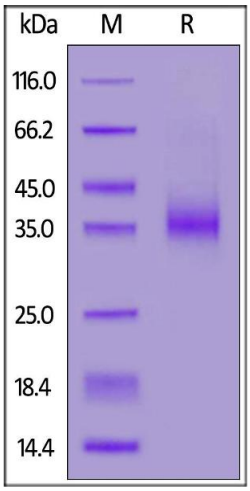
	This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C

Publications

Product cited in:	Kalichuk, Renodon-Cornière, Béhar, Carrión, Obal, Maillasson, Mouratou, Préat, Pecorari: "A novel, smaller scaffold for Affitins: Showcase with binders specific for EpCAM." in: **Biotechnology and bioengineering**, Vol. 115, Issue 2, pp. 290-299, (2018) (PubMed). Grzeschik, Hinz, Könning, Pirzer, Becker, Zielonka, Kolmar: "A simplified procedure for antibody engineering by yeast surface display: Coupling display levels and target binding by ribosomal skipping." in: **Biotechnology journal**, Vol. 12, Issue 2, (2017) (PubMed).



SDS-PAGE

Image 1. Biotinylated Human EpCAM, Avitag,His Tag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95 % .