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CEA

Catalog # PVGS1581

Product Information

Primary Accession	P06731
Species	Human
Sequence	Lys35-Ala685
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	Immobilized CEA, His, Human at 1.0 μg/ml (100 μl/well) can bind Human CEA Antibody (1A5C3), Mouse with EC_{50}=2.323 ng/ml when detected by M6 Goat Anti Mouse Fc.
Expression System	CHO 3E7
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	1048
Other Names	Cell adhesion molecule CEACAM5, Carcinoembryonic antigen, CEA, Carcinoembryonic antigen-related cell adhesion molecule 5, CEA cell adhesion molecule 5 {ECO:0000312|HGNC:HGNC:1817}, Meconium antigen 100, CD66e, CEACAM5 (HGNC:1817)
Target Background	Carcinoembryonic antigen (CEA) also known as Carcinoembryonic antigen-related cell adhesion molecule 5 (CEACAM5), CD antigen CD66e, Meconium antigen 100, is an oncofetal glycoprotein that is normally expressed by mucosal cells. CEA is a member of the immunoglobulin (Ig) superfamily of proteins. CEA is a glycophosphatidylinositol- (GPI-) linked membrane-anchoring protein that is exposed to the cell surface that faces the extracellular matrix. The membrane-anchoring region of CEA can be cleaved by phospholipase C and phospholipase D. The cleaved products are soluble and circulating through blood vessels. Thus, CEA can be present as secreted and cell surface-anchored forms. CEA is functionally associated with cellular

interaction, cell adhesion, immune response, anoikis resistance, and promotion of liver metastasis. CEA overexpression is associated with many types of cancers including gastrointestinal, respiratory, and genitourinary system and breast cancers.

Protein Information

Name	CEACAM5 (HGNC:1817)
Function	Cell surface glycoprotein that plays a role in cell adhesion, intracellular signaling and tumor progression (PubMed:10864933, PubMed:10910050, PubMed:2803308). Mediates homophilic and heterophilic cell adhesion with other carcinoembryonic antigen-related cell adhesion molecules, such as CEACAM6 (PubMed:2803308). Plays a role as an oncogene by promoting tumor progression; induces resistance to anoikis of colorectal carcinoma cells (PubMed:10910050).
Cellular Location	Cell membrane; Lipid-anchor, GPI-anchor; Extracellular side. Apical cell membrane. Cell surface Note=Localized to the apical glycocalyx surface
Tissue Location	Expressed in columnar epithelial and goblet cells of the colon (at protein level) (PubMed:10436421). Found in adenocarcinomas of endodermally derived digestive system epithelium and fetal colon.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.