CEACAM5 Antibody / Carcinoembryonic Antigen [clone MSVA-465R] (V5853)

Catalog No.	Formulation	Size
V5853-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5853-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-465R
UniProt	P06731
Localization	Apical cell membrane, Cell membrane, Cell surface
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This CEACAM5/Carcinoembryonic Antigen antibody is available for research use only.

Immunohistochemical analysis of FFPE human tissue microarrays stained with CEACAM5 / Carcinoembryonic antigen antibody (clone MSVA-465R). In normal tissues, staining is largely restricted to epithelial cell populations with membranous and luminal surface localization, consistent with known CEACAM5 expression patterns in gastrointestinal and glandular epithelia. In cancer tissues, strong membranous and cytoplasmic staining is observed in tumor epithelial cells in multiple carcinoma types, while surrounding stromal and non-epithelial cells remain negative. The observed staining distribution is consistent with reported CEACAM5 expression profiles in publicly available expression atlases such as the Human Protein Atlas.

Description

CEACAM5 antibody targets Carcinoembryonic antigen, a glycosylated cell surface protein encoded by the CEACAM5 gene and widely known in the literature as CEA. Carcinoembryonic antigen is a member of the carcinoembryonic antigen-related cell adhesion molecule family and is primarily localized to the cell membrane, where it participates in intercellular adhesion and epithelial organization. CEACAM5 is also commonly referred to as CD66e and is characterized by multiple immunoglobulin-like domains and extensive glycosylation.

Carcinoembryonic antigen is highly expressed during fetal development and shows restricted expression in normal adult tissues, predominantly within gastrointestinal epithelium. CEACAM5 antibody, also frequently referred to as CEA antibody, is widely used to examine epithelial differentiation and adhesion-related processes. The strong membrane-associated localization of CEACAM5 supports its role in maintaining epithelial cell-cell interactions and tissue architecture.

Expression of CEACAM5 is markedly increased in many epithelial-derived tumors, particularly those of gastrointestinal origin. CEACAM5 antibody is therefore commonly applied in research focused on tumor biology, epithelial marker characterization, and lineage-specific expression profiling. Carcinoembryonic antigen expression is especially well documented in colorectal adenocarcinoma, as well as in other epithelial malignancies, reinforcing its importance as a widely studied tumor-associated antigen.

In cancer-related research, altered expression and localization of Carcinoembryonic antigen have been associated with changes in cell adhesion, invasion, and tumor progression. CEACAM5 antibody is frequently used to investigate epithelial tumor markers and to distinguish epithelial tumor cells from surrounding stromal or mesenchymal components. The strong association of CEA with epithelial tumors has made CEACAM5 a cornerstone target in tumor classification studies.

This CEACAM5 antibody is designed to recognize Carcinoembryonic antigen in research applications. It supports detection of membrane-associated CEACAM5 expression and is suitable for studies examining epithelial cell adhesion, tumor marker expression, and gastrointestinal epithelial biology.

Application Notes

1. Optimal dilution of the CEACAM5/Carcinoembryonic Antigen antibody should be determined by the researcher.

2. This CEACAM5/Carcinoembryonic Antigen antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual protocol: freshly cut tissue sections (less than 10 days between cutting and staining) were used. Heat-induced antigen retrieval was performed for 5 minutes in an autoclave at 121C using pH 7.8 target retrieval solution. The antibody was applied at a dilution of 1:150 and incubated at 37C for 60 minutes. Detection was performed using an EnVision-based visualization system according to the manufacturerÃ¢Â€Â™s instructions.

Immunogen

Recombinant full-length human CEA protein was used as the immunogen for the Carcinoembryonic Antigen antibody.

Storage

CEACAM5/Carcinoembryonic Antigen antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.