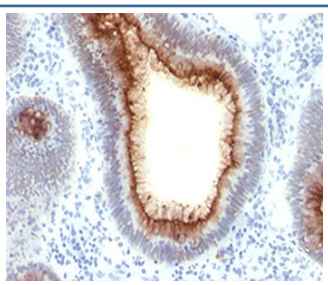
CEA Antibody Mouse Monoclonal / CEACAM5 [clone C66/1009] (V2376)

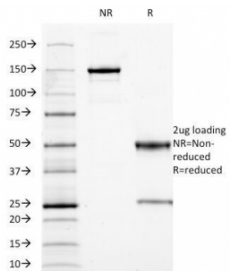
Catalog No.	Formulation	Size
V2376-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2376-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2376SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2376IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	C66/1009
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
UniProt	P06731
Localization	Cytoplasmic and luminal surface
Applications	0.5-1ug/ml for 30 min at RT (1) (2)
Limitations	This **CEA antibody** is available for research use only.



Immunohistochemistry of CEA antibody in human colon carcinoma tissue. FFPE human colon carcinoma demonstrates strong membranous and apical HRP-DAB brown staining in tumor epithelial cells lining glandular structures, consistent with Carcinoembryonic antigen / CEACAM5 localization at the cell surface. Clone C66/1009 was used as a mouse monoclonal antibody for detection.



SDS-PAGE Analysis of Purified, BSA-Free CEA Antibody (clone C66/1009). Confirmation of Integrity and Purity of the Antibody.

Description

CEA antibody recognizes Carcinoembryonic antigen, also known as CEACAM5, a glycosylated cell surface adhesion molecule encoded by the CEACAM5 gene. Carcinoembryonic antigen is a member of the carcinoembryonic antigen-related cell adhesion molecule family within the immunoglobulin superfamily. It is localized predominantly to the apical surface of epithelial cells in the gastrointestinal tract and other mucosal tissues. CEA Antibody Mouse Monoclonal is developed to detect endogenous Carcinoembryonic antigen expression in research applications focused on epithelial biology and tumor marker studies.

CEACAM5 plays a role in intercellular adhesion, modulation of cell signaling, and maintenance of epithelial architecture. In normal adult tissues, expression is largely restricted to luminal surfaces of colon, stomach, and other epithelial linings. During embryonic development, Carcinoembryonic antigen is more broadly expressed, which led to its original identification as an oncofetal antigen. In malignant transformation, CEACAM5 is frequently overexpressed and aberrantly distributed across the entire cell membrane and cytoplasm of tumor cells.

The CEACAM5 gene is located on chromosome 19q13.2 within a cluster of related CEACAM family members. The protein is heavily glycosylated and anchored to the cell membrane via a glycosylphosphatidylinositol linkage. Altered expression of CEA has been documented in colorectal carcinoma, gastric carcinoma, pancreatic carcinoma, lung adenocarcinoma, and breast carcinoma, among others. Because of its frequent upregulation in epithelial malignancies, Carcinoembryonic antigen remains one of the most studied tumor-associated markers in cancer research.

Beyond its diagnostic relevance, CEACAM5 contributes to tumor cell adhesion, invasion, and metastatic potential by influencing cell-cell interactions and interactions with the extracellular matrix. It has also been implicated in immune modulation within the tumor microenvironment. These biological roles continue to drive investigation of CEA in oncology and translational research settings.

Clone C66/1009 is a mouse monoclonal antibody that recognizes Carcinoembryonic antigen and supports studies of epithelial differentiation, tumor-associated antigen expression, and CEACAM family biology.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues REQUIRES boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.
3. Clone C66/1009 (recommended detect) will pair with clones C66/1030 and C66/261 (recommended capture) by ELISA.

Immunogen

Human full-length recombinant CEA protein was used as the immunogen for this antibody.

Storage

Store the CEA antibody at 2-8oC.

References (4)

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