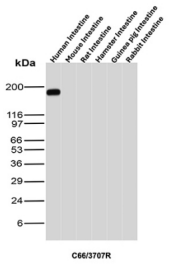
CEA Antibody / Human Tissue Reactive CEACAM5 Antibody [clone C66/3707R] (V8370)

Catalog No.	Formulation	Size
V8370-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8370-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8370SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

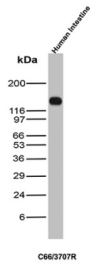
Recombinant RABBIT MONOCLONAL

Bulk quote request

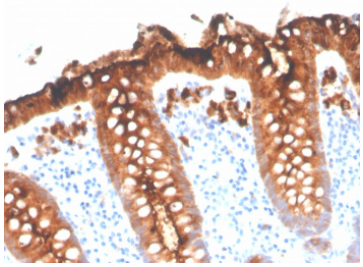
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	C66/3707R
Purity	Protein A affinity chromatography
UniProt	P06731
Localization	Cytoplasmic and luminal surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT Western Blot : 2-4ug/ml
Limitations	This CEA Antibody / Human Tissue Reactive CEACAM5 Antibody is available for research use only.



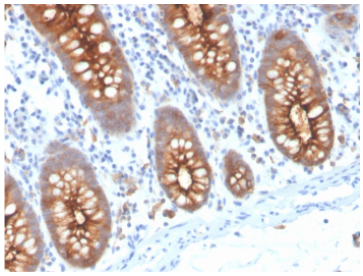
CEA Antibody Cross-Species Intestine WB. Western blot analysis of CEA / CEACAM5 expression using recombinant CEA antibody, clone C66/3707R. Lane 1: human intestine lysate, Lane 2: mouse intestine lysate, Lane 3: rat intestine lysate, Lane 4: hamster intestine lysate, Lane 5: guinea pig intestine lysate, Lane 6: rabbit intestine lysate. A strong band is detected at approximately 180-200 kDa in human intestine, consistent with the predicted molecular weight of heavily glycosylated CEACAM5, while no comparable band is observed in the tested non-human intestine samples, supporting selective detection of human CEACAM5 under these western blot conditions.



CEA Antibody Intestine WB. Western blot analysis of CEA / CEACAM5 expression in human intestine tissue lysate using recombinant CEA antibody, clone C66/3707R. Lane 1: human intestine tissue lysate. A strong band is detected at approximately 180-200 kDa, consistent with the predicted molecular weight of CEACAM5, with the elevated apparent size reflecting extensive glycosylation characteristic of this epithelial cell surface glycoprotein.



CEA Antibody Colon IHC. Immunohistochemistry analysis of CEA / CEACAM5 expression in FFPE human colon tissue using recombinant CEA antibody, clone C66/3707R. This CEA antibody shows strong apical membranous and cytoplasmic HRP-DAB brown staining in columnar epithelial cells lining intestinal glands, with minimal staining in the surrounding stroma; nuclei are counterstained blue. The staining pattern is consistent with polarized epithelial localization of carcinoembryonic antigen in normal colon tissue. Antigen retrieval was performed by boiling sections in 10 mM Tris buffer with 1 mM EDTA, pH 9, for 20 min followed by cooling at room temperature.



CEA Antibody Human Colon Tissue IHC. Immunohistochemistry analysis of CEA / CEACAM5 expression in FFPE human colon tissue using recombinant CEA antibody, clone C66/3707R. This CEA antibody demonstrates strong apical membranous HRP-DAB brown staining in glandular epithelial cells, with luminal accentuation and minimal signal in surrounding stromal cells; nuclei are counterstained blue. The staining pattern reflects polarized localization of carcinoembryonic antigen within intestinal epithelium. Antigen retrieval was performed by boiling sections in 10 mM Tris buffer with 1 mM EDTA, pH 9, for 20 min followed by cooling at room temperature.

Description

Carcinoembryonic antigen (CEACAM5) is a glycosylphosphatidylinositol-anchored cell surface glycoprotein of the immunoglobulin superfamily and a central member of the carcinoembryonic antigen-related cell adhesion molecule family. Carcinoembryonic antigen (CEACAM5), commonly referred to as CEA, mediates epithelial cell adhesion, polarity, and intercellular signaling within mucosal tissues. CEA Antibody / Human Tissue Reactive CEACAM5 Antibody is particularly suited for detecting CEACAM5 in human-derived samples, where accurate identification of epithelial lineage and tumor-associated expression is required. CEACAM5 is highly expressed in normal gastrointestinal epithelium, especially in the colon and small intestine, and is frequently upregulated in colorectal, gastric, pancreatic, and lung adenocarcinomas, supporting its role as a well-established epithelial tumor marker.

CEA antibody, also known as CEACAM5 antibody or carcinoembryonic antigen antibody, recognizes a heavily glycosylated protein characterized by multiple extracellular immunoglobulin-like domains and a glycosylphosphatidylinositol anchor that localizes it to the outer leaflet of the plasma membrane. In normal epithelial tissues, CEACAM5 exhibits polarized apical distribution, contributing to organized cell-cell adhesion and barrier integrity. In tumor tissues, this polarity is often lost, resulting in broader membranous and cytoplasmic localization that reflects disruption of epithelial architecture and altered adhesion dynamics. These changes are commonly observed in adenocarcinomas and are consistent with the role of CEACAM5 in tumor progression and tissue remodeling.

This CEA Antibody / Human Tissue Reactive CEACAM5 Antibody is supported by western blot data demonstrating selective detection of a high molecular weight CEACAM5 band in human intestine lysate, with no detectable corresponding band observed in tested mouse, rat, hamster, guinea pig, or rabbit intestine lysates under identical conditions. The detected band migrates at an elevated apparent molecular weight consistent with extensive glycosylation, a defining feature of CEACAM5. This pattern supports preferential recognition of human CEACAM5 in the tested samples and provides a meaningful advantage for studies focused on human tissues, where reduced cross-species signal can

improve specificity and interpretation in comparative experimental designs.

CEACAM5 participates in both homophilic and heterophilic interactions with other CEACAM family members, including CEACAM6 and CEACAM1, contributing to the formation of adhesion complexes and modulation of intracellular signaling pathways. Through these interactions, CEACAM5 has been implicated in promoting tumor cell aggregation, enhancing resistance to apoptosis, and facilitating metastatic dissemination. Its localization to membrane microdomains further supports its involvement in signaling networks that regulate cell survival, proliferation, and interaction with the tumor microenvironment.

Expression of CEACAM5 is tightly regulated during development and is typically low or absent in most adult tissues outside the gastrointestinal tract. In cancer, however, its expression is frequently reactivated and significantly elevated, making it a hallmark feature of many epithelial malignancies. In addition to its cell surface localization, CEACAM5 can be shed into the extracellular space and circulation, where it serves as a widely used tumor marker in clinical monitoring. The combination of strong expression in human epithelial tissues and selective detection in human lysates supports its use as a reliable marker for human-specific studies. A CEA antibody can be used in western blot, immunohistochemistry, or other research assays to evaluate CEACAM5 expression in epithelial tissues and cancer models, supporting investigations into tumor biology, cell adhesion mechanisms, and CEACAM-associated signaling pathways.

This CEA antibody is part of a broader CEA antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the CEA Antibody / Human Tissue Reactive CEACAM5 Antibody should be determined by the researcher.

Immunogen

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

Storage

Store the CEA antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CEA antibody, CEACAM5 antibody, Carcinoembryonic antigen antibody, CD66e antibody, CEACAM5 human tissue antibody