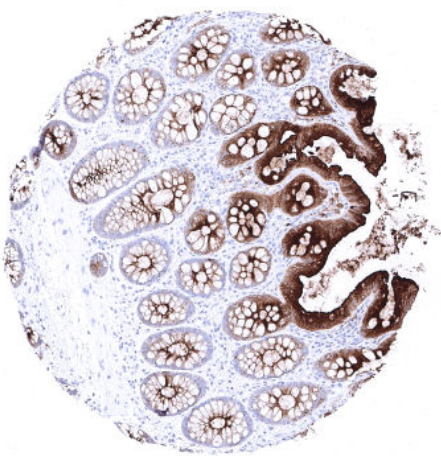


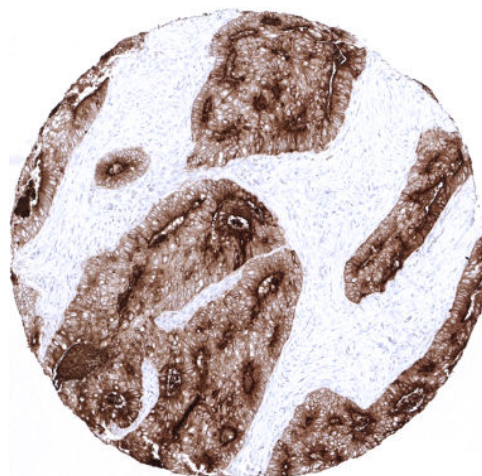
Anti-CEA Antibody MSVA-465R / Recombinant Rabbit monoclonal

Human SwissProt	P06731
Human Gene Symbol	CEACAM5
Synonyms	Carcinoembryonic Antigen-related Cell Adhesion Molecule 5, CEACAM5, CD66, Biliary Glycoprotein (BGP-1)
Specificity	CEA
Immunogen	Recombinant human CEA protein
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Cytoplasmic and luminal surface

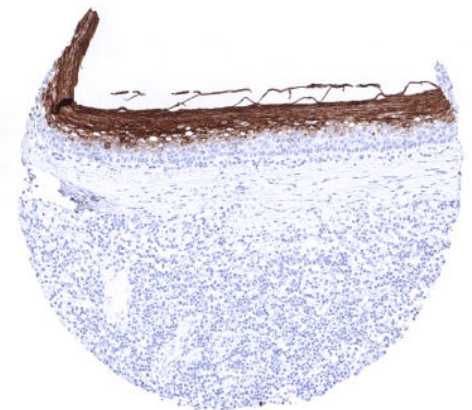
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Colon or appendix: An at least moderate cytoplasmic staining should be seen in the vast majority of columnar epithelial cells.
Negative Control	Colon or appendix: Staining should not be seen in stroma cells or smooth muscle.



Moderate to strong CEA immunostaining in the epithelial cells of the colon. Inflammatory and smooth muscle cells remain negative.



Colorectal adenocarcinoma showing strong CEA immunostaining in tumor cells.



Strong CEA immunostaining of the superficial layers of the squamous epithelium of the tonsil surface. The basal epithelial cell layers and inflammatory cells are CEA negative.

Biology

Carcinoembryonic antigen (CEA; CEACAM5, CD66e) is a 180-kDa cell surface glycoprotein involved in cell adhesion that is extensively produced during fetal development but limited to few normal tissues already before birth. CEA is clinically important because it is overexpressed in various cancers. Since tumoral CEA is also shed into the bloodstream, serum CEA measurement can be utilized for early detection and recurrence monitoring of cancer. CEA is also a potential drug target. In normal tissues, a moderate to strong CEA expression is seen in the upper layers of non-keratinizing squamous epithelium of oral cavity, lip, tonsil surface and crypts, and ectocervix while (almost) all cell layers stain in the esophagus. Stomach surface cell layers show moderate to strong CEA positivity. Duodenum and small intestine show a moderate intensity staining of goblet cells primarily of surface epithelium. Strongest CEA staining in the GIT is seen in the colorectal area including appendix. Here the staining is again always strongest in the surface cells and upper cell layers of crypts. Salivary glands show a weak membranous apical staining of mucinous cells. In tumors, CEA is expressed in almost all colorectal adenocarcinomas and medullary carcinomas of the thyroid. CEA expression is also high in a large fraction of adenocarcinomas of the salivary glands, esophagus, stomach, biliary tract, pancreas, lung, uterine cervix and ovary (mucinous carcinomas). Tumor types that seldom express CEA include ovarian serous and clear cell carcinoma, renal cell carcinoma, adrenal cortical carcinoma, germ cell tumors of the testis, prostate adenocarcinoma, hepatocellular carcinoma, and thyroid carcinoma (except medullary).

Potential Research Applications

- The diagnostic utility of CEA expression should be evaluated in large studies comparing different cancer entities.
- The prognostic role of CEA expression is not clear for many cancers.
- The utility of CEA as a drug target is under investigation.

Protocol Suggestions

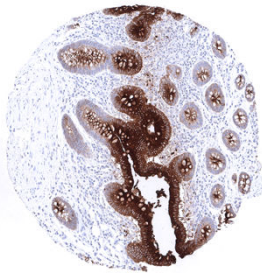
Dilution: 1:150; pH 9 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

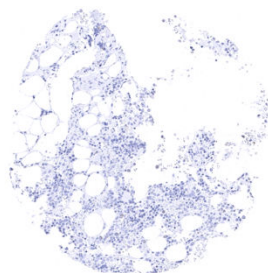
This antibody is available for **research use only** and is not approved for use in diagnostics.
Not for resale without express authorization.

Warranty

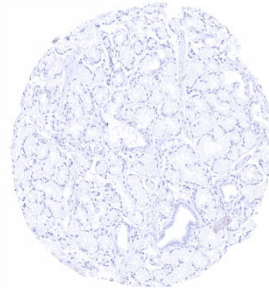
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



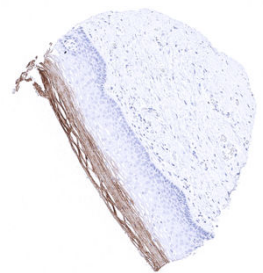
Appendix, mucosa



Bone marrow



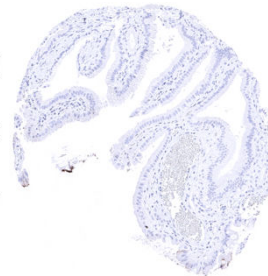
Duodenum, brunner gland



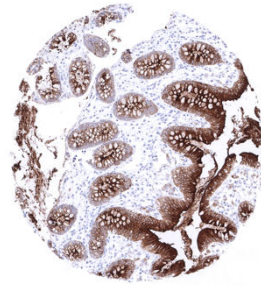
Ectocervix



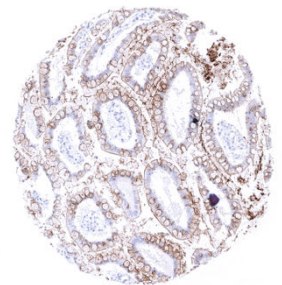
Esophagus, squamous epithelium



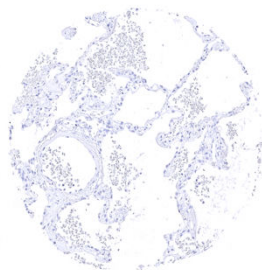
Gallbladder, epithelium



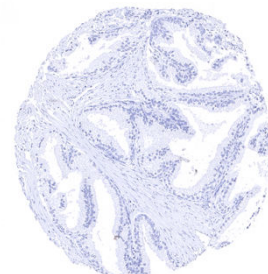
Ileum, mucosa



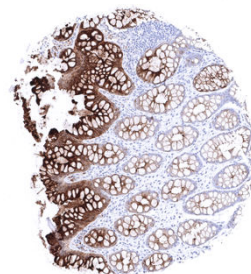
Ileum, mucosa



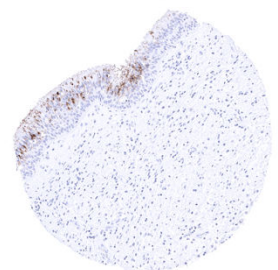
Lung



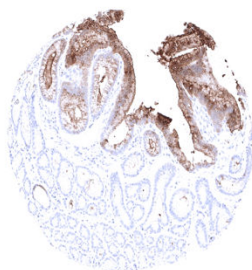
Prostate



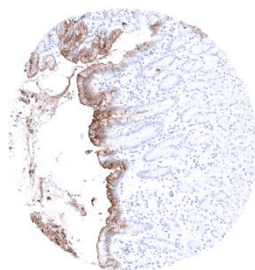
Rectum, mucosa



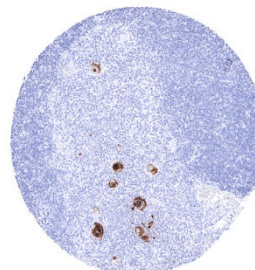
Sinus paranasales



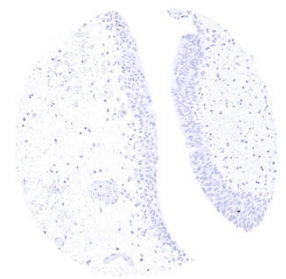
Stomach, antrum



Stomach, corpus



Thymus



Urinary bladder, urothelium