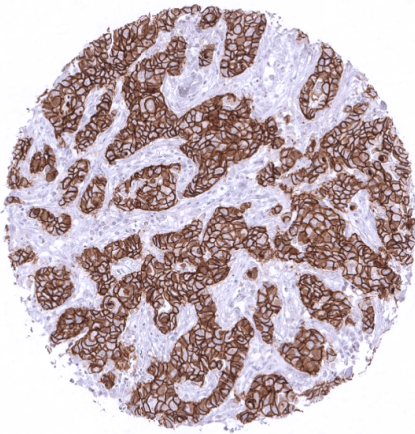


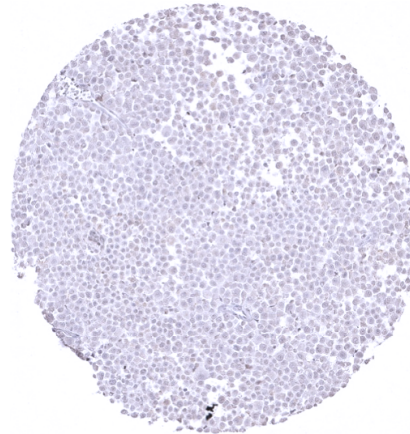
Anti- E-Cadherin Antibody MSVA-035R / Rabbit monoclonal

Human SwissProt	P12830
Human Gene Symbol	CDH1
Synonyms	Arc 1; cadherin 1 type 1 E-cadherin; Cadherin1; CAM 120/80; CD324; CDH1; CDHE; E-Cad/CTF3; E-cadherin; ECAD; Epithelial cadherin; epithelial calcium dependent adhesion protein; Liver cell adhesion molecule (LCAM); Uvomorulin (UVO)
Specificity	E-cadherin
Immunogen	Recombinant fragment of human E-cadherin
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Cell Surface

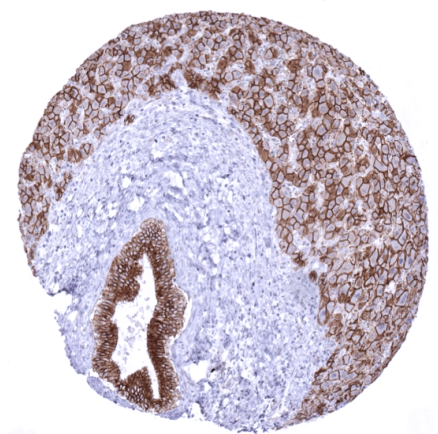
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Positive Control	In the liver, at least a moderate membranous staining should be seen in hepatocytes while bile duct epithelia stain strongly. In the colon, only epithelium should display a strong membranous staining reaction.
Negative Control	tonsil or appendix: No staining reaction must be seen in stromal cells such as lymphocytes, plasma cells, smooth muscle cells or endothelial cells.



Breast: Strong membranous E-cadherin staining in a breast cancer NST.



Breast: Absence of E-cadherin staining in a lobular breast cancer.



In the liver, at least a moderate membranous staining of hepatocytes and a strong membranous staining of bile duct epithelia should be seen.

Biology

E-cadherin is a calcium-dependent membranous glycoprotein with an important role in cellular adhesion and polarity maintenance. The pivotal role of E-cadherin is highlighted by its expression starting at the 2-cell stage of mammalian development. In adult tissues, E-cadherin is constantly regenerated with a 5-hour half-life on the cell surface. Loss of E-cadherin function or expression plays a relevant role in cancer development and progression. E-cadherin downregulation diminishes cellular adhesion in epithelial tissues and facilitates invasive growth and metastasis. Reduced E-cadherin function is commonly seen in cancers showing discoherent growth. E-cadherin is expressed in virtually all epithelial tissues, with only few exceptions. In the kidney E-Cadherin expression is only seen in the distal but not in the proximal tubuli. In the placenta, only the cytotrophoblastic but not the syncytiotrophoblast shows a positive staining. In addition, a fraction of small sliced vessels are E-Cadherin-positive in the spleen. E-Cadherin in neoplasia largely parallels the findings in normal tissues. Cancers derived from E-Cadherin expressing normal tissues are mostly E-Cadherin positive. Neoplasias derived from E-Cadherin negative normal tissues are typically E-Cadherin negative. Loss of E-Cadherin expression is characteristic of lobular breast cancer. Both, down-regulation of E-Cadherin expression in cancers of E-Cadherin positive tissues and E-Cadherin neo-expression in cancers arising from E-Cadherin negative tissues are often linked to cancer progression and may herald poor prognosis.

Potential Research Applications

- Invasive lobular breast cancer shows reduced or lost E-cadherin expression in 80-90% of cases.
- Distinction of chromophobe (strong E-cadherin expression) from clear cell (weak or absent E-cadherin expression) renal cell carcinoma.

Protocol Suggestions

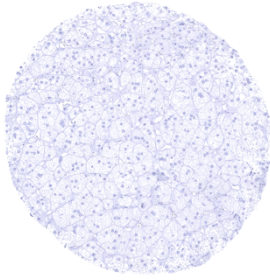
Dilution 1:150; pH 9,0 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

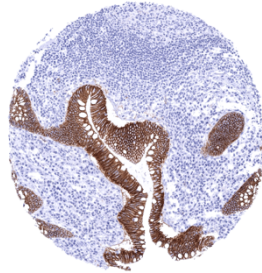
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

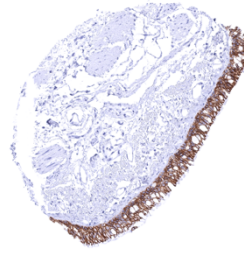
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



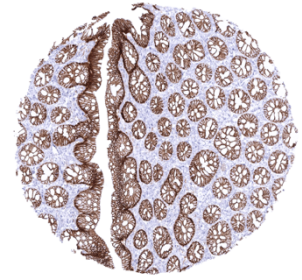
Adrenal gland - E-Cadherin staining is absent in adrenocortical cells



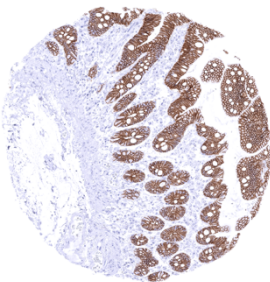
Appendix, mucosa



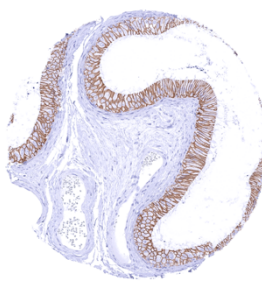
Bronchus, mucosa



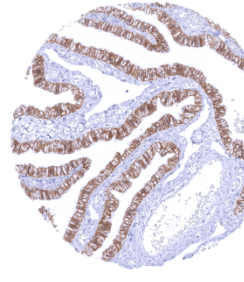
Colon descendens, mucosa



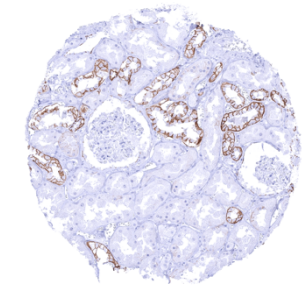
Duodenum, mucosa



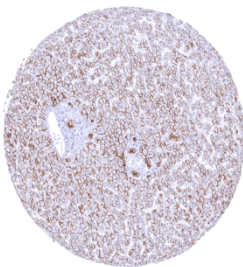
Epididymis



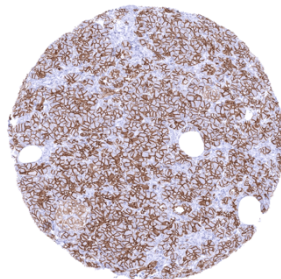
Fallopian tube, mucosa



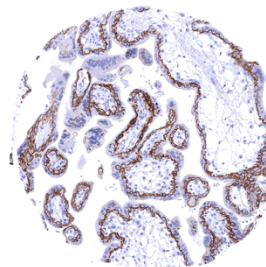
Kidney, cortex - E-Cadherin staining is only seen in collecting ducts and in distal tubuli but not in proximal tubuli



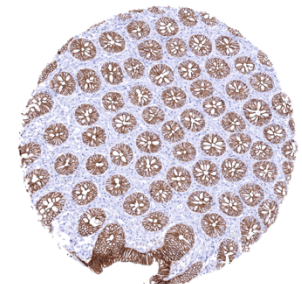
Liver - At least a moderate membranous staining is seen in hepatocytes while bile duct epithelia stain strongly



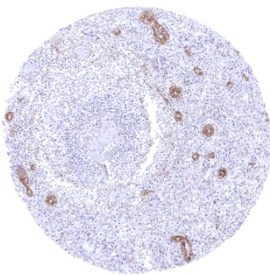
Pancreas - E-cadherin staining is strong in acinar cells but somewhat weaker in islet cells



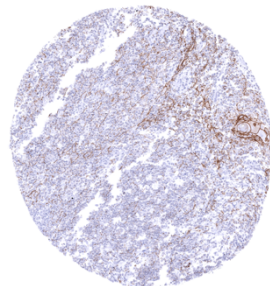
Placenta, early - The cytotrophoblast but not the syncytiotrophoblast shows membranous E-Cadherin staining



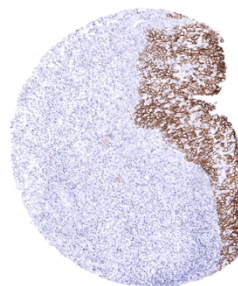
Rectum, mucosa



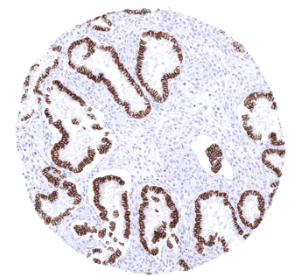
Spleen - A fraction of small vessels stain E-Cadherin-positive in the spleen



Thymus - E-Cadherin staining occurs in corpuscles of Hassall's and in a fraction of thymic epithelial cells



Tonsil



Uterus, endometrium (secretion)