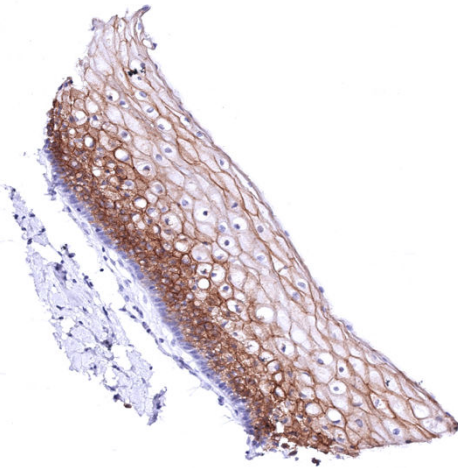


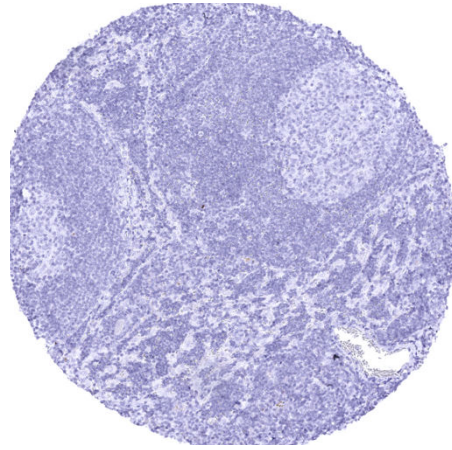
## Anti- Nectin-4 Antibody MSVA-304M / Mouse monoclonal

Human SwissProt	Q96NY8
Human Gene Symbol	NECTIN4
Synonyms	Nectin-4, Nectin cell adhesion molecule 4, PVRL4, PRR4, Poliovirus receptor-related protein 4, poliovirus receptor-related 4, Processed poliovirus receptor-related protein 4, Ig superfamily receptor LNIR, Ig superfamily receptor LNIR family
Specificity	NECTIN4
Immunogen	Recombinant human NECTIN4 fragment
Isotype	Mouse / IgG
Species Reactivity	Human

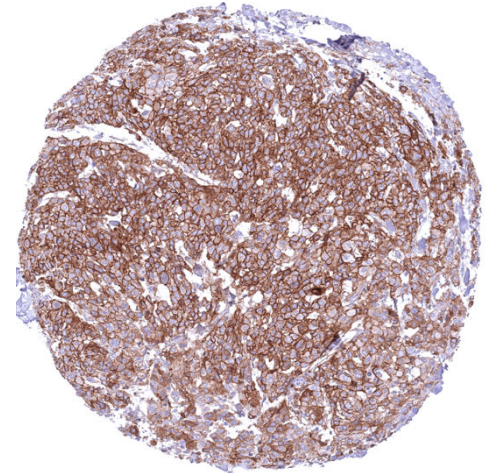
Localization	Membranous
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Tonsil: A strong membranous nectin-4 staining must be seen in squamous epithelial cells while inflammatory cells must remain nectin-4 negative.
Negative Control	Lymph node: All cell types must not show nectin-4 staining.



**Ectocervix with strong nectin-4 staining of squamous epithelium. The staining is most intense in the suprabasal cell layers and gradually decreases towards the superficial cell layers while basal cells are nectin-4 negative.**



**Lymph nodes do not contain nectin-4 positive cell types.**



**Penile squamous cell carcinoma with intense membranous nectin-4 positivity of all tumor cells.**

### Biology

Nectin-4, also known as Poliovirus receptor-related 4 (PVRL4), is a transmembrane protein playing a crucial role in calcium-independent cell-cell adhesion and it is also involved in several signaling pathways including the PI3K/AKT and the JAK2-STAT5a pathways. Among normal tissues nectin-4 is expressed in various epithelial cell types. It is most prominently found in squamous epithelium, urothelium, salivary glands, and breast glands but it also occurs in other tissues. Nectin-4 is involved in the regulation of cell functions with importance for cancer such as migration, adhesion, and proliferation of tumor cells. Nectin-4 also has a soluble form which is established by shedding of the entire nectin-4 extracellular domain. Nectin-4 shedding especially occurs in case of cellular hypoxia. Soluble nectin-4 interacts with integrin-β4 on endothelial cells and thereby promotes angiogenesis by activation of several signaling pathways including PI3K/AKT. Among cancers, nectin-4 expression is particularly frequent in squamous cell carcinomas from different sites of origin, urothelial tumors, pancreatic adenocarcinoma, pulmonary adenocarcinoma, and in breast cancer. However, Nectin-4 expression can also occur in various other tumor entities. In several cancer entities, unfavorable prognosis has been described for nectin-4 positive cancers. Most of the current interest in nectin-4 is driven by its role as a drug target for enfortumab vedotin (EV) which has been FDA approved for advanced urothelial carcinoma. EV and several other anti-nectin-4 drugs are currently further investigated in clinical trials on bladder cancer and several other tumor entities.

### Potential Research Applications

- How can Nectin-4 IHC be optimally used to predict response to anti-nectin-4 drugs?
- How common is nectin-4 expression in different tumor types?
- Are nectin-4 expression levels in cancers related to patient prognosis?
- Understanding mechanisms of resistance towards anti-nectin-4 drugs?

### Protocol Suggestions

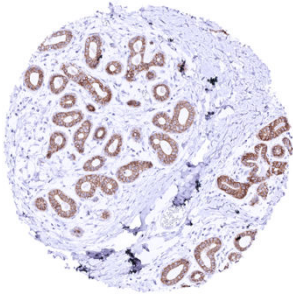
**Dilution: 1:100 - 1:200; pH 9 is optimal.** Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

### Limitations

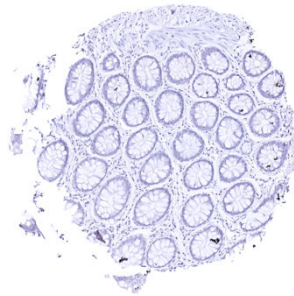
This antibody is available for **research use only** and is not approved for use in diagnostics.

### Warranty

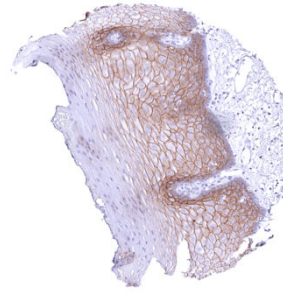
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



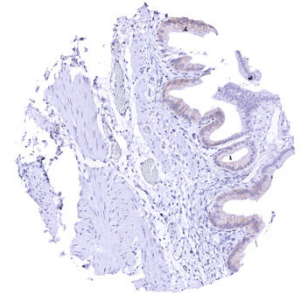
Breast – Strong membranous nectin-4 staining of luminal epithelial cells while staining is markedly less intense or absent in basal cells.



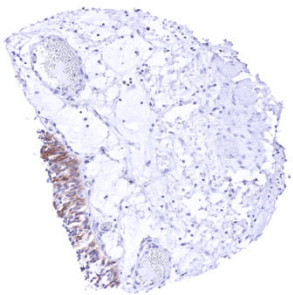
Colon descendens, mucosa



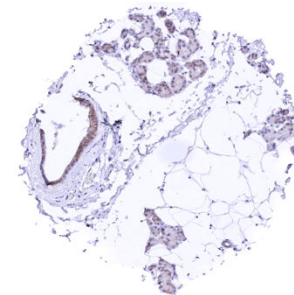
Esophagus, squamous epithelium



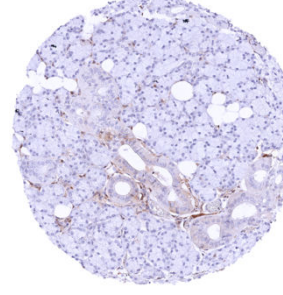
Gallbladder, epithelium – Weak to moderate membranous nectin-4 staining of many epithelial cells (most prominent at the lateral membranes).



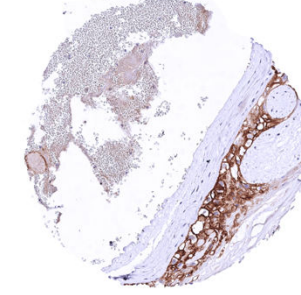
Kidney, pelvis, urothelium – Distinct membranous nectin-4 staining of most urothelial cells.



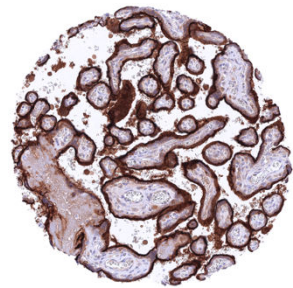
Parotid gland – Moderate membranous nectin-4 staining of subsets of excretory duct cells while staining of glandular cells is only faint.



Parotid gland



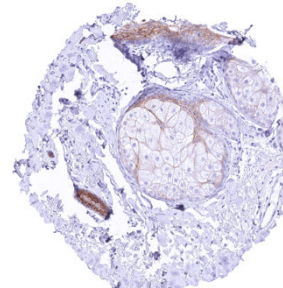
Placenta (chorion) – Strong membranous nectin-4 positivity of all chorion cells.



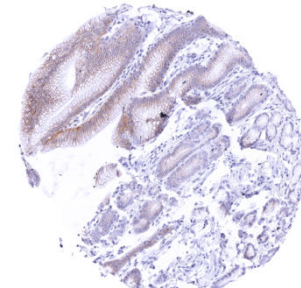
Placenta, mature – Very intense nectin-4 staining of the apical surface membrane of the syncytiotrophoblast.



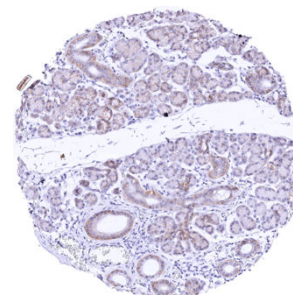
Sinus paranasales – Weak to moderate membranous nectin-4 staining of ciliated cells (most prominent at the lateral membranes) of the respiratory epithelium.



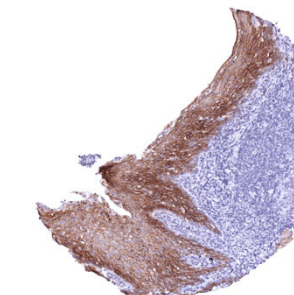
Skin, sebaceous glands – Weak to moderate membranous nectin-4 staining of sebaceous cells. Moderate membranous nectin-4 staining of peripheral germinative



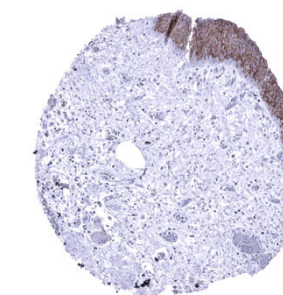
Stomach, antrum – Moderate membranous nectin-4 staining of surface epithelial cells (most prominent at the lateral membranes) while gastric glands show much less or absent staining.



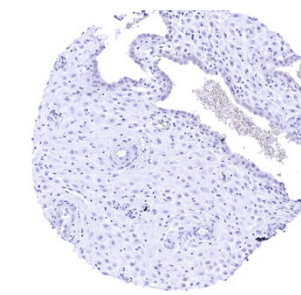
Submandibular gland – Moderate membranous nectin-4 staining of subsets of excretory duct cells while staining of glandular cells is focal and rather weak.



Tonsil, surface epithelium



Urinary bladder, urothelium – Strong membranous nectin-4 staining of most urothelial cells. Only cells of the basal cell layer are always nectin-4 negative.



Uterus, endometrium (pregnancy)