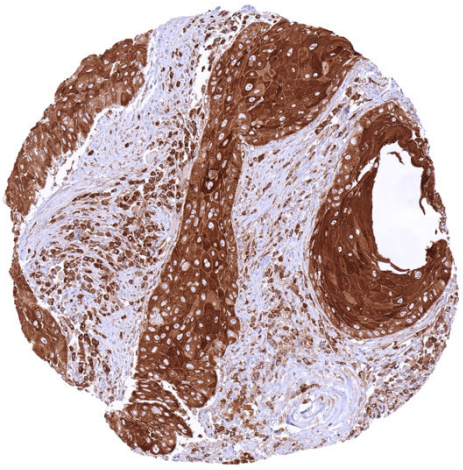
MS Validated Antibodies GmbH
Bergstedter Chaussee 62a
22395 Hamburg, Germany
Tel: +49 (0) 40 89 72 55 81
E-Mail: info@ms-validatedantibodies.com
Website: ms-validatedantibodies.com

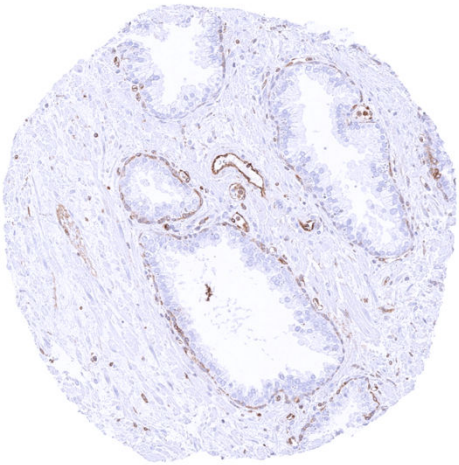
Anti- MX1 Antibody
HMV316/ Recombinant Rabbit monoclonal

Human SwissProt	P20591
Human Gene Symbol	MX1
Synonyms	MX dynamin like GTPase 1,IFI-78K,IFI78,MX,MxA
Specificity	MX1
Immunogen	Recombinant human MX1 fragment
Isotype	Rabbit / IgG
Species Reactivity	Human

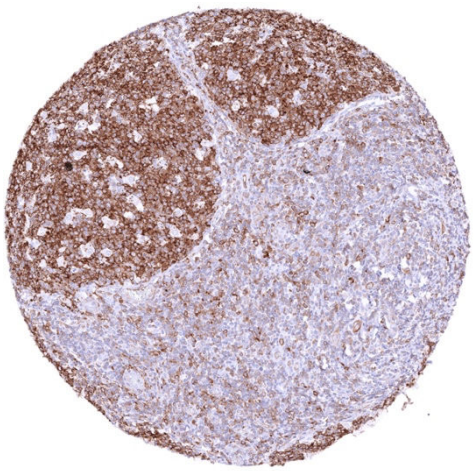
Localization	Intracellular
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Prostate: An at least weak to moderate MX1 staining should be seen in basal cells while acinar cells remain negative.
Negative Control	Colon: Crypt epithelial cells should be MX1 negative.



Laryngeal squamous cell carcinoma with strong MX1 staining of tumor cells and a somewhat less intense stromal and inflammatory cell staining



Prostate showing a distinct cytoplasmic MX1 staining of basal cells and of endothelial cells while acinar epithelial cells are negative



Tonsil with intensive cytoplasmic MX1 staining of lymphocytic cells, especially in germinal centres

Biology

The interferon-induced GTP-binding protein MX1 (myxovirus resistance protein 1) is a member of a family of large GTPases which belongs to the dynamin superfamily. MX1 is a mediator of the resistance mechanisms to infections by influenza and other viruses both in cell culture and in transgenic mice. Its role in human influenca virus resilience is not fully understood, however, as humans harboring heterozygous and homozygous combinations of allelic MX1 variants could be linked to neither increased susceptibility to influenza virus nor to increased likelihood of severe disease. MX1 is expressed in many normal tissues with a predilection for lymphocytic and endothelial cells, but many epithelial cells are also MX1 positive, especially in case of tissue alteration. A role in cancer biology has also been proposed for MX1. MX1 was found to be overexpressed in various cancer entities and the level of expression has been found to be linked to parameters of cancer aggressiveness in some.

Potential Research Applications

The diagnostic and prognostic relevance of MX1 expression in tumors and in preneoplastic disease needs to be investigated.

Protocol Suggestions

Dilution: 1:100 – 1:200 pH 7,8 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.

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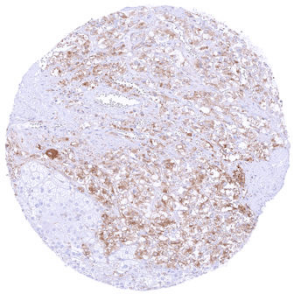
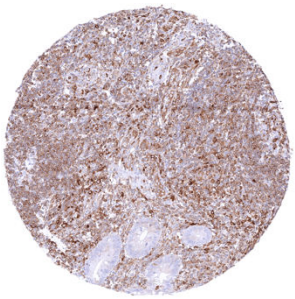
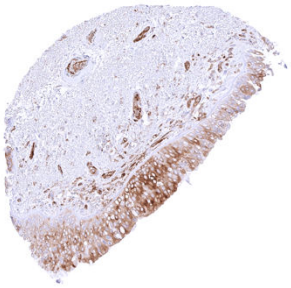


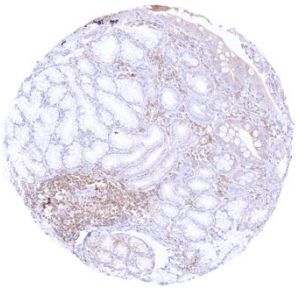
Adrenal gland – Moderate MX1 staining of medullary cells. Adrenocortical cells are MX1 negative



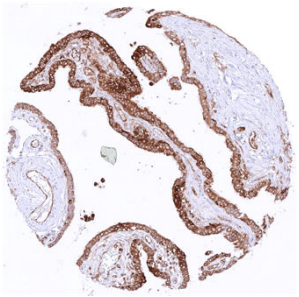
Appendix, mucosa – Abundant cytoplasmic MX1 staining of lymphocytic cells. Crypt epithelial cells are MX1 negative



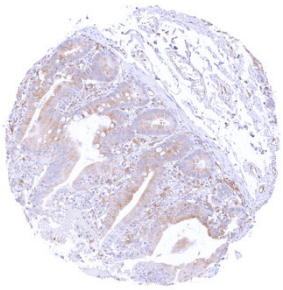
Bronchus, glands – Moderate to strong cytoplasmic MX1 staining in subsets of epithelial cells



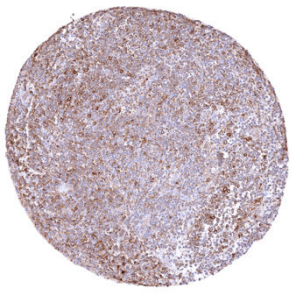
Duodenum, brunner gland – Brunner gland cells are MX1 negative



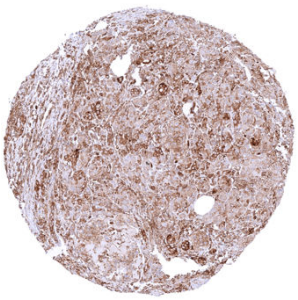
Fallopian tube, mucosa – Strong cytoplasmic MX1 staining of epithelial cells in this sample



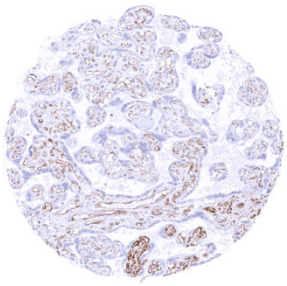
Ileum, mucosa – Weak to moderate cytoplasmic MX1 staining of epithelial cells



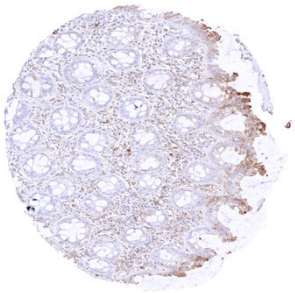
Lymph node – Cytoplasmic MX1 staining at variable intensity of a large fraction of cells



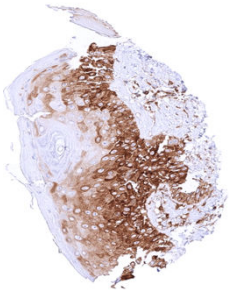
Pancreas – Strong cytoplasmic MX1 staining of all epithelial cell types in a sample with some inflammation and scar formation



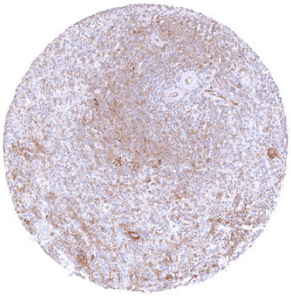
Placenta, mature – Trophoblast cells are MX1 negative. Strong staining is only seen in endothelial cells



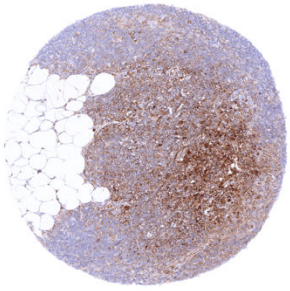
Rectum, mucosa – MX1 staining of epithelial cells is largely restricted to superficial cell layers



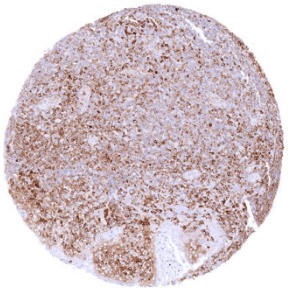
Skin – Strong cytoplasmic MX1 positivity of bottom half of epithelial cells in this sample.png



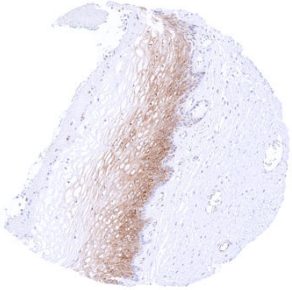
Spleen – Cytoplasmic MX1 staining at variable intensity of a large fraction of cells



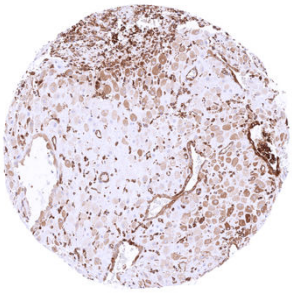
Thymus – Cytoplasmic MX1 staining at variable intensity of a large fraction of cells



Tonsil, surface epithelium – Abundant cytoplasmic MX1 staining of lymphocytic cells while epithelial cells remain negative



Uterus, ectocervix – Moderate cytoplasmic MX1 staining of suprabasal cell layers



Uterus, endometrium (pregnancy) – Strong MX1 staining of endometrium cells. Moderate intensity MX1 staining of decidua cells