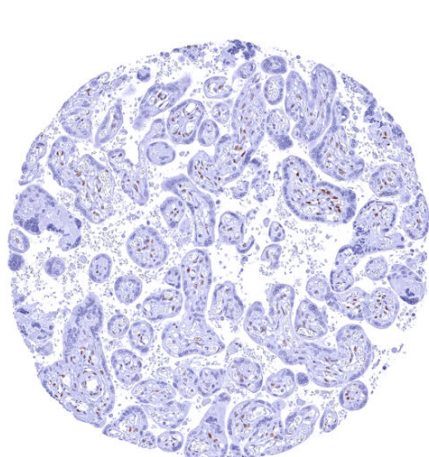


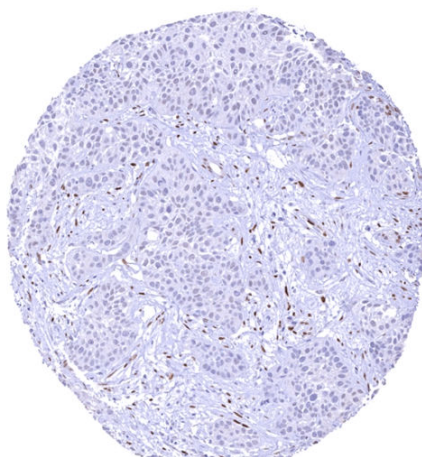
Anti- NFIX Antibody HMOV329 / Recombinant Rabbit monoclonal

Human SwissProt	Q14938
Human Gene Symbol	NFIX
Synonyms	nuclear factor 1 X , CTF , MRSHSS , NF-1/X , NF1-X , NF1A , SOTOS2
Specificity	NFIX
Immunogen	Recombinant protein encompassing a sequence within the center region of human NFIX. The exact sequence is proprietary.
Isotype	Rabbit / IgG
Species Reactivity	Human

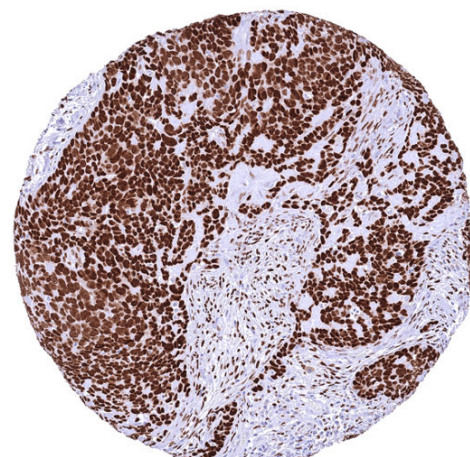
Localization	Nucleus
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Placenta: A moderate to strong nuclear NFIX staining should be seen in stromal cells while trophoblast cells should remain NFIX negative.
Negative Control	Placenta: Trophoblast cells should remain NFIX negative while a moderate to strong nuclear NFIX staining should be seen in stromal cells.



Mature placenta with a moderate to strong nuclear NFIX staining of stromal cells while trophoblast cells remain negative



Muscle-invasive urothelial carcinoma of the urinary bladder. Tumor cells are NFIX positive while numerous stromal cells show a strong positivity



Squamous cell carcinoma of the anal canal showing a markedly stronger nuclear NFIX staining of tumor than of stromal cells

Biology

Nuclear factor 1 X-type (NFIX) is one out of four closely related members of the nuclear factor I (NFI) family of transcription factors. The family members share a particularly high rate of interactions with other transcription factors. They are therefore thought to not only directly regulate the expression of genes but also believed to modulate the function of other transcription factors. NFIX plays a role in muscle and central nervous system embryonic development. The role of NFIX in other tissues is less intensively studied. Various types of NFIX alterations have been found in tumors. Mechanisms leading to both increased and reduced expression have been found to promote pro-tumorigenic functions, such as increased cell proliferation and migration and disturbed differentiation. In normal tissues NFIX is expressed at variable levels in most cell types. Expression is particularly high in muscular tissue, endometrium, salivary glands and the fallopian tube while NFIX is largely absent in umbrella cells of the urothelium, amnion, chorion, and trophoblast cells of the placenta, lymphocytes, macrophages, most hematopoietic cells of the bone marrow, hepatocytes, and in Sertoli cells and germ cells of the testis. A variable level of NFIX staining is seen in many cases of most cancer types.

Potential Research Applications

- The role of NFIX in cancer is completely unclear.
- The patterns of NFIX protein expression in cancer have not been explored.
- The role of NFIX in heart disease is under investigation.
- The role of NFIX in other diseases is not specified yet.

Protocol Suggestions

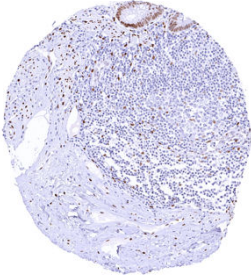
Dilution: 1:100 – 1:200 ; pH 7,8 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

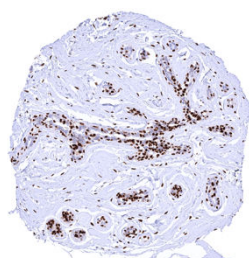
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

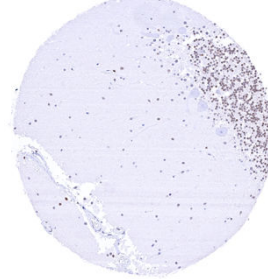
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



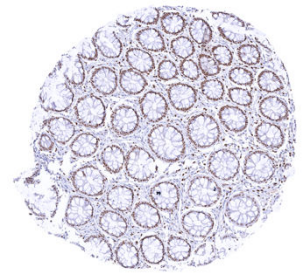
Appendix, mucosa



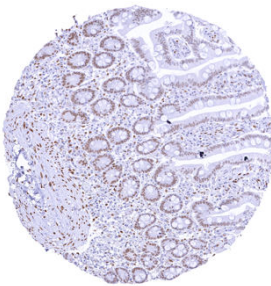
Breast – Strong nuclear NFIX staining of a large subset of basal and luminal epithelial cells



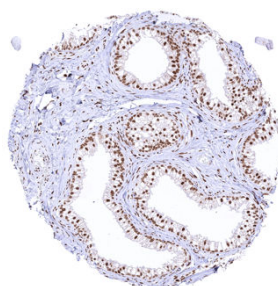
Cerebellum, cortex (molecular layer, Purkinje cell layer, granule cell layer) – Weak nuclear NFIX staining of glial and granular cells. Lack of staining NFIX in Purkinje cell



Colon descendens, mucosa – Moderate nuclear NFIX staining of epithelial cells



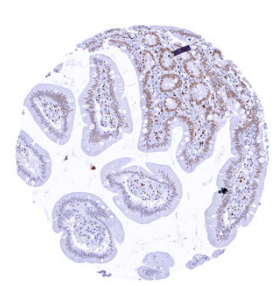
Duodenum, mucosa – Nuclear NFIX staining is moderate in crypt bases and weak-faint or even absent in the surface epithelium



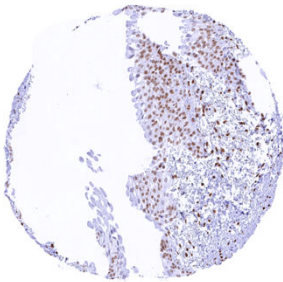
Epididymis (Cauda) – Strong nuclear NFIX staining of epithelial cells



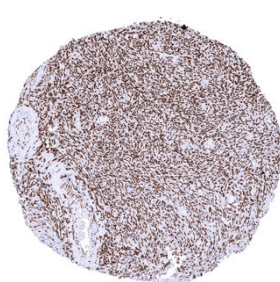
Fallopian tube, mucosa – Strong nuclear NFIX staining of all cells



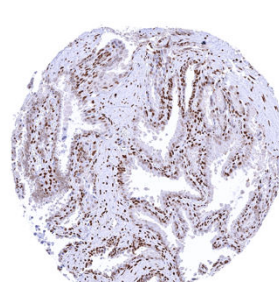
Ileum, mucosa – Nuclear NFIX staining is moderate in crypt bases and weak-faint or even absent in the surface epithelium



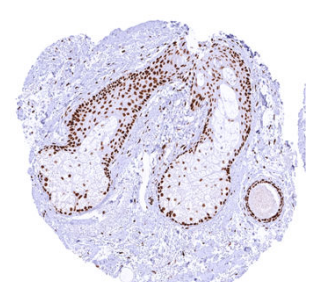
Kidney, pelvis, urothelium – Distinct nuclear NFIX staining of urothelial cells although there is a significant decrease of NFIX staining intensity from the basal to the superficial cell layers. Umbrella cells are largely NFIX negative



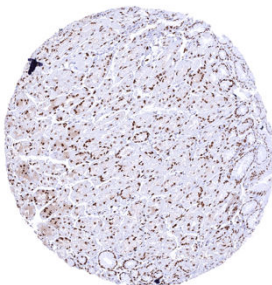
Ovary, stroma – Strong nuclear NFIX staining of stromal cells



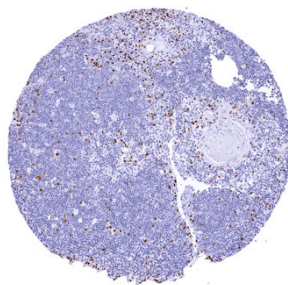
Seminal vesicle – Strong nuclear NFIX staining of stromal and basal epithelial cells. NFIX staining is weak or absent in most luminal epithelial cells



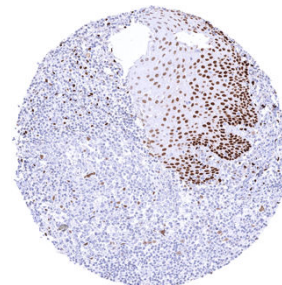
Skin, hairfollicel and sebaceous glands – Weak to moderate nuclear NFIX staining of sebaceous gland cells. The staining intensity decreases towards the centre of the glands



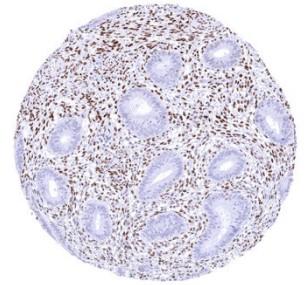
Stomach, antrum – Moderate to strong nuclear NFIX staining of most epithelial cells but few glandular cells do only show faint or even absent NFIX staining



Thymus – Lymphocytes are NFIX negative. Distinct nuclear NFIX staining of epithelial cells. Maturing squamous epithelial cells of corpuscles of Hassall's stain weakly or remain negative



Tonsil, surface epithelium – Significant decrease of nuclear NFIX staining of squamous epithelium from the basal-suprabasal to the superficial cell layers



Uterus, endometrium (proliferation) – Strong nuclear NFIX staining of stromal cells while endometrium cells remain NFIX negative