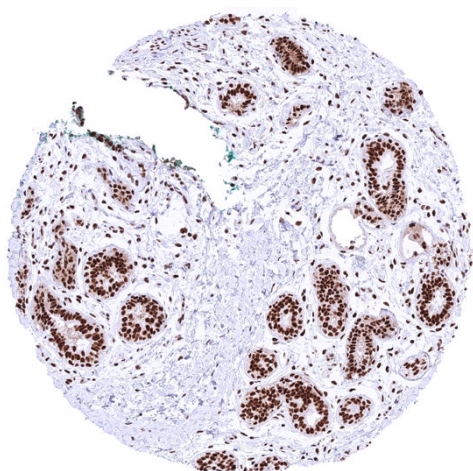


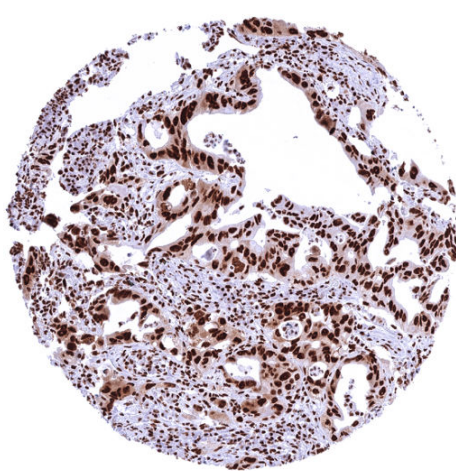
Anti- PUF60 Antibody HMV4728 / Mouse monoclonal

Human SwissProt	Q9UHX1
Human Gene Symbol	PUF60
Synonyms	poly(U) binding splicing factor 60 , FIR , RoBP1 , SIAHBP1 , VRJS
Specificity	PUF60
Immunogen	Recombinant human PUF60fragment
Isotype	Mouse / IgG2b
Species Reactivity	Human

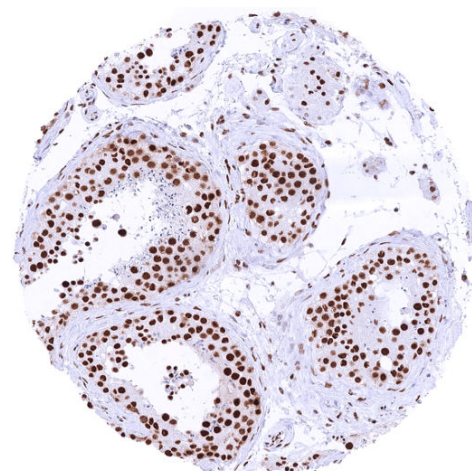
Localization	Nuclear
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Testis: All cell types (except spermatids) should show strong nuclear PUF60 staining.
Negative Control	Testis: Spermatids should be PUF60 negative.



Breast gland with strong nuclear PUF60 staining of all cells.



Pulmonary adenocarcinoma with intense PUF60 staining of all tumor cells.



Strong nuclear PUF60 staining of most cells although mature spermatids are PUF60 negative.

Biology

PUF60 is a member of the Pumilio family of RNA-binding proteins which is coded by the PUF60 gene on chromosome 8q24.3. PUF60 is involved in various cellular processes, including mRNA metabolism, splicing regulation, and assembly of RNA-protein complexes. It plays a critical role in the regulation of gene expression through its ability to bind to RNA, thus influencing the stability, translation, and localization of target mRNAs. PUF60 is especially important for neural development and organogenesis. PUF60 Knock-Out Mice display embryonic lethality. PUF60 germ line mutations have been linked to specific syndromes, including neurodevelopmental disorders that affect cognitive functions and behavior. In normal tissues, PUF60 is ubiquitously expressed. Tissues with a rather low PUF60 expression include hepatocytes, syncytiotrophoblast cells of the placenta, as well as superficial epithelial cell layers of the intestine and squamous epithelium. Spermatids in the testis are PUF60 negative. Evidence is accumulating that PUF60 also plays an important role in cancer biology, for example through its role as a c-myc transcriptional repressor. Aberrant PUF60 expression has been linked to increased tumor aggressiveness and poor prognosis in several malignancies. Its role in cellular transformation and tumor progression is not fully elucidated yet.

Potential Research Applications

- How does PUF60 depletion affect cellular differentiation and function in normal and diseased tissues?
- What role does PUF60 play in the molecular pathways involved in cancer?
- How does PUF60 expression correlate with tumor phenotype in specific cancer types?

Protocol Suggestions

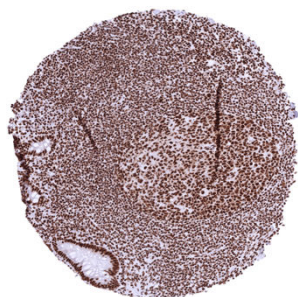
Dilution: 1:100 – 1:200 ; pH 7,8 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

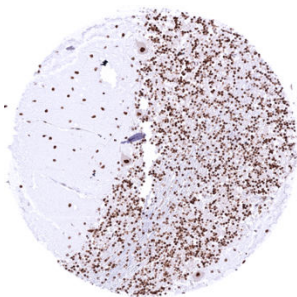
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

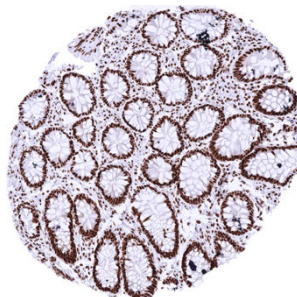
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



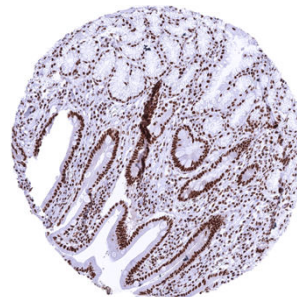
Appendix, mucosa



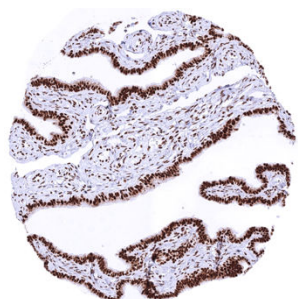
Cerebellum, cortex (grey)



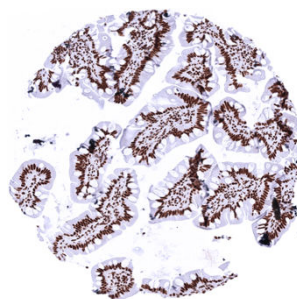
Colon descendens, mucosa



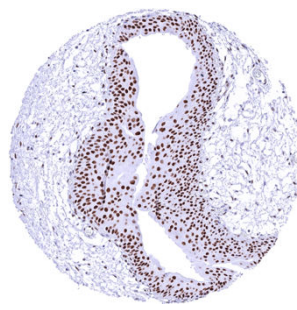
Duodenum, mucosa



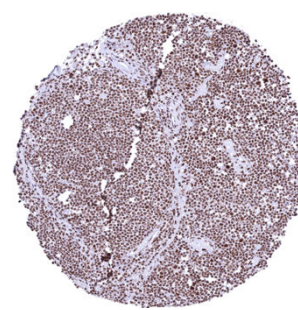
Fallopian tube, mucosa



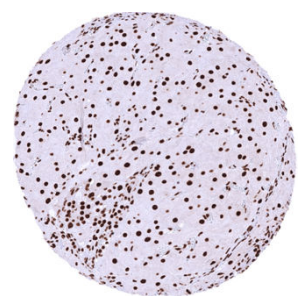
Ileum, mucosa



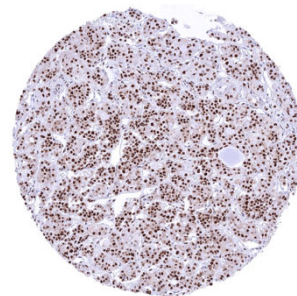
Kidney, pelvis, urothelium – Strong nuclear PUF60 staining of all cells.



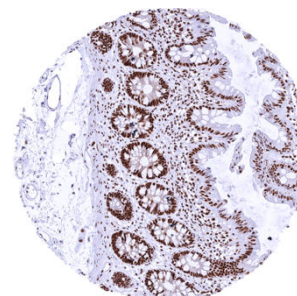
Lymph node



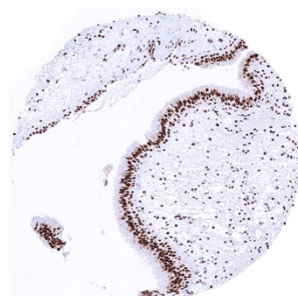
Ovary, corpus luteum



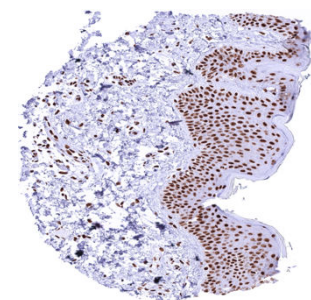
Pituitary gland, anterior lobe



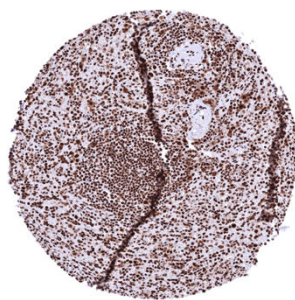
Rectum, mucosa – Strong nuclear PUF60 staining of all cells. Slight decrease of intensity from the crypts towards the surface epithelium.



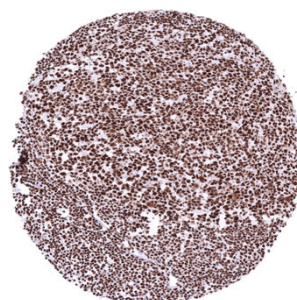
Sinus paranasales



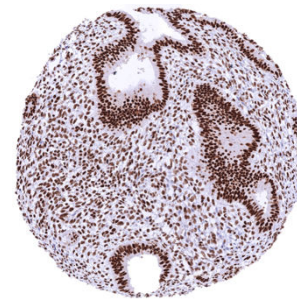
Skin – Strong nuclear PUF60 staining of all cells.



Spleen



Tonsil



Uterus, endometrium (proliferation)