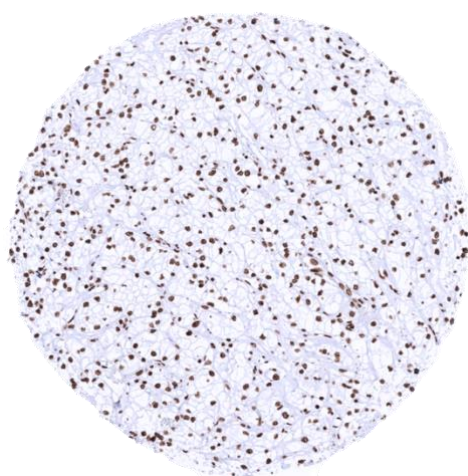


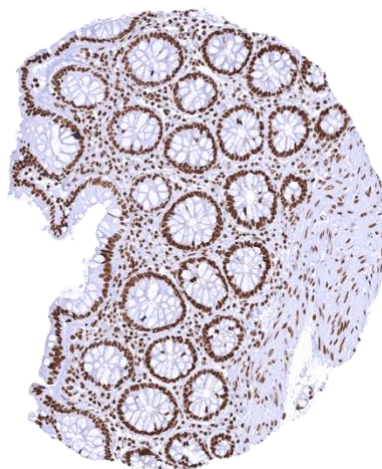
Anti- Histone H3 (H3-3A) Antibody MSVA-903M / Mouse monoclonal

Human SwissProt	P84243
Human Gene Symbol	H3-3A
Synonyms	H3.3 Histone A, H3.3A, H3F3A, H3F3, H3 Histone Family Member 3A, H3 Histone, Family 3A, Histone H3.3, BRYLB1, H3-3B, H3.3B, H3F3B
Specificity	Histone H3
Immunogen	Recombinant human H3.3 histone A fragment
Isotype	Mouse / IgG
Species Reactivity	Human

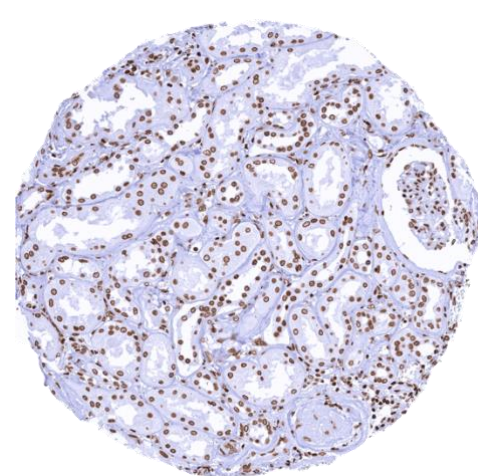
Localization	Intracellular
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available without BSA
Positive Control	Lymph node: A strong nuclear Histone H3 staining should be seen in all cells while strongest staining intensity occurs in cells of germinal centres.
Negative Control	Colon, Kidney: Histone H3 staining should be seen in nuclei only. Cytoplasmic staining should not be seen.



Clear cell renal cell carcinoma with strong Histone H3 staining of tumor cells



Colon mucosa with distinct nuclear Histone H3 staining



Kidney with Histone H3 staining of nuclei

Biology

Histone H3 is one of the five main histones in human cells. Histones are small basic proteins which represent the main protein components of the chromatin. They package and organize DNA at the level of the nucleosomes which constitute the functional units of the chromatin. The dynamics of this organization permits the compaction of the genome, while enabling all cellular processes operating on DNA, such as transcription, replication, recombination and repair. Human cells contain 7 known sequence variants of histone H3. These are denoted as Histone H3.1, Histone H3.2, Histone H3.3, Histone H3.4 (H3T), Histone H3.5, Histone H3.X and Histone H3.Y but have highly conserved sequences differing only by a few amino acids. The N-terminus of H3 protrudes from the globular nucleosome core and is subject to post-translational modifications that can influence cellular functions. A nuclear Histone H3 staining is seen in virtually every cell of all tissue types although the staining intensity can slightly vary. Also in tumors, a nuclear Histone H3 staining is always seen. For some cancer entities, a prognostic role has been proposed for the Histone H3 expression levels, however.

Potential Research Applications

-The prognostic relevance of Histone H3 expression in tumors needs to be investigated.

-Potential utility of Histone H3 as a nuclear marker in multicolor IHC studies.

Protocol Suggestions

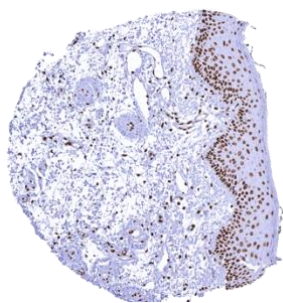
Dilution: 1:150. pH 7,8 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

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

Warranty

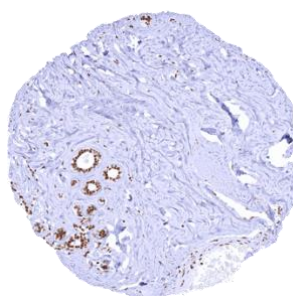
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



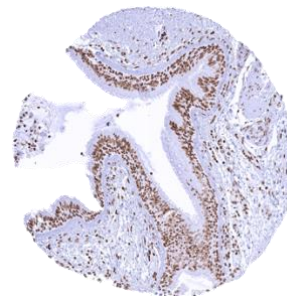
Anal canal, skin – Histone H3 staining of all nuclei. In the squamous epithelium, the staining intensity decreases towards the surface



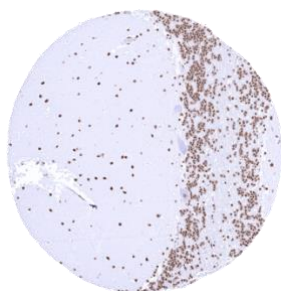
Bone marrow



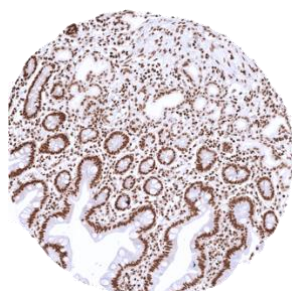
Breast



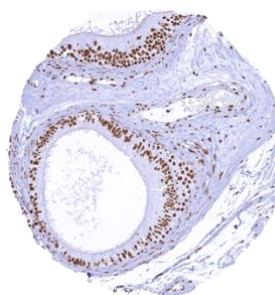
Bronchus, mucosa



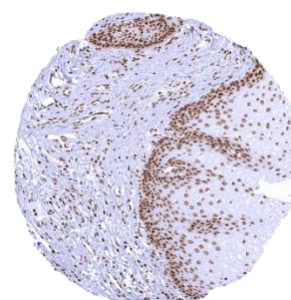
Cerebellum, (molecular layer, Purkinje cell layer, granule cell layer)



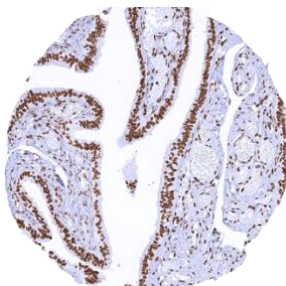
Duodenum, mucosa



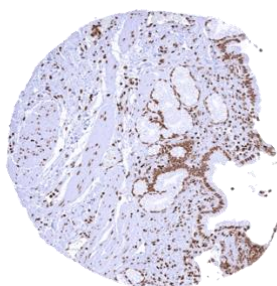
Epididymis, caput



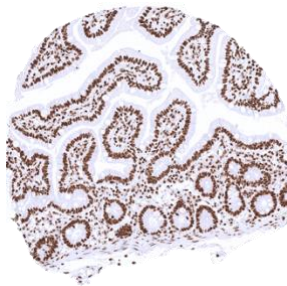
Esophagus, squamous epithelium



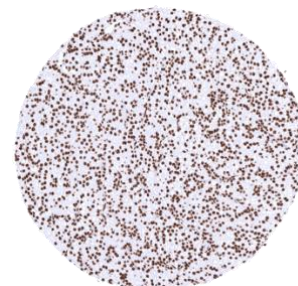
Fallopian tube, mucosa



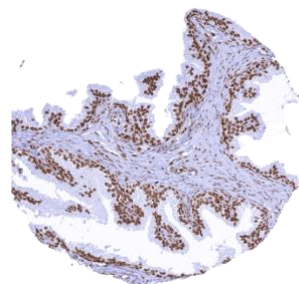
Gallbladder, epithelium



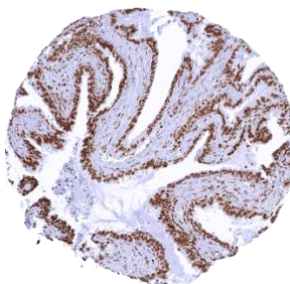
Ileum, mucosa



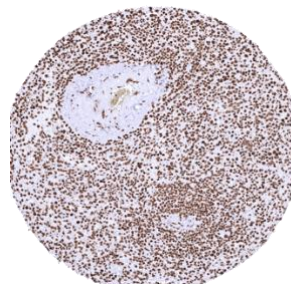
Parathyroid gland



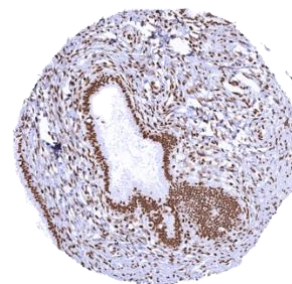
Prostate



Seminal vesicle



Spleen



Uterus, Endocervix