MS Validated Antibodies

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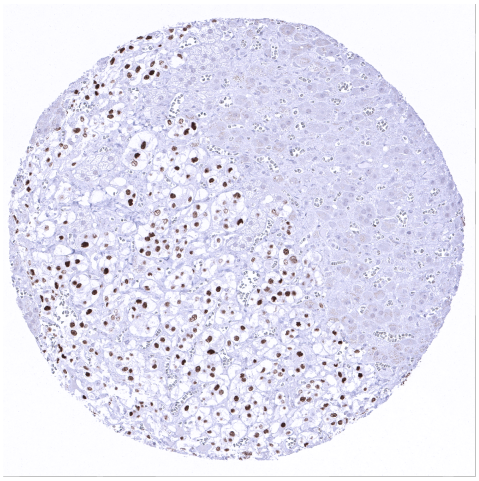
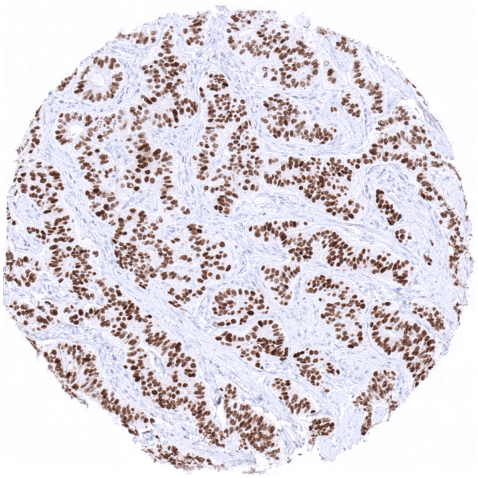
Anti-INSM1 Antibody
MSVA-456R / Recombinant Rabbit monoclonal

Human SwissProt	Q01101
Human Gene Symbol	INSM1
Synonyms	A1; Insulinoma associated protein 1 (IA1); Zinc finger protein IA1
Specificity	INSM1
Immunogen	Recombinant fragment corresponding to the N-terminus of human INSM1
Isotype	Rabbit / IgG
Species Reactivity	Human

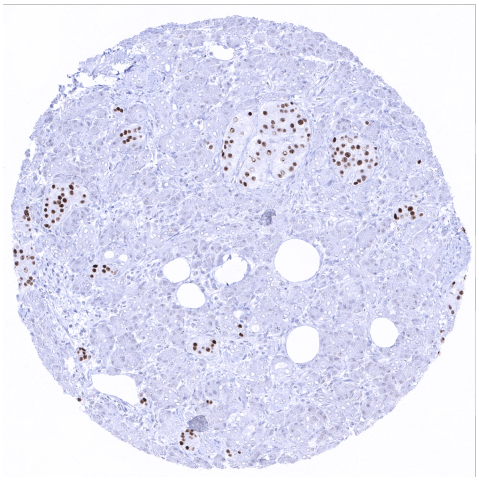
Localization	Nuclear
Storage & Stability	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C.Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody in Tris pH 7,3-7,7 with 1% BSA, <0,1% NaN3. Also available WITHOUT BSA & azide at 1,0mg/ml.
Positive Control	pancreas: Islet cells should show a moderate to strong INSM1 immunostaining
Negative Control	pancreas: all acinar cells should be negative



Strong INSM1 immunostaining of medullar but not cortical cells of the adrenal gland.



Strong INSM1 immunostaining in a low grade neuroendocrine tumor of the appendix.



Moderate to strong INSM1 immunostaining in most cells of Langerhans islets of the pancreas.

Biology

The Insulinoma-associated 1 (INSM1) is an intronless gene located at 20p11.23 coding for a 58kDa protein containing a zinc finger DNA-binding domain and a putative prohormone domain. It is primarily expressed in the developing nervous system and in neuroendocrine tissues. Its effects are caused by interactions with different molecules, depending on the type of tissue involved. INSM1 contributes to the induction of cell cycle arrest and exit necessary to facilitate cellular differentiation. The INSM1 protein can bind to both DNA and protein. Binding to cyclin D1 results in an inhibition of cell cycle progression. As a DNA binding transcription factor it for example represses transcription of NeuroD/β2 and the insulin gene in islet cells of the pancreas. In normal tissues, a moderate to strong INSM1 expression is seen in medullary cells of the adrenal gland, Islet cells of the pancreas, a fraction of cells in the adenohypophysis, scattered neuroendocrine cells in the colorectum, small intestine and the stomach, Few basally located - possibly also neuroendocrine - cells in the respiratory epithelium of the bronchus, and few scattered thymic epithelial cells in the thymic medulla. Among tumors, INSM1 is expressed in all kinds of neuroendocrine tumors, including neuroendocrine tumors and neuroendocrine cancers of various organs of origin, pheochromocytoma, paraganglioma, medullary thyroid cancer, Merkel cell carcinoma, and small cell carcinomas of various origins. INSM1 is also expressed in myxoid chondrosarcoma.

Potential Research Applications

-INSM1 has been suggested as a sensitive marker of neuroendocrine differentiation and of neuroendocrine tumors but large-scale studies are lacking. Many tumor entities have not yet been analyzed for INSM1 expression.
-The prognostic and predictive role of INSM1 expression needs to be evaluated.
-The role of INSM1 as a therapeutic target is under investigation.

Protocol Suggestions

Dilution: 1:100 ; pH 7,8 is optimal. Freshly cut sections s hould be used (less 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. Not for resale without express authorization.

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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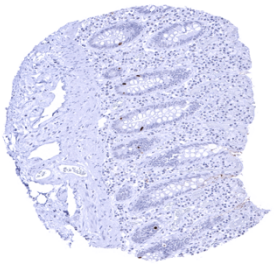
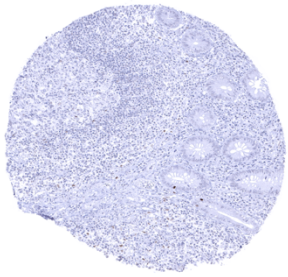
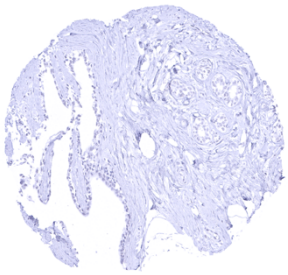


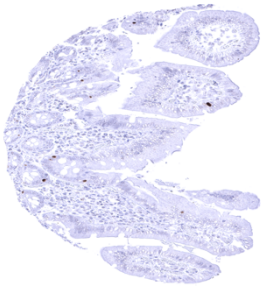
Appendix, mucosa - Moderate INSM1 immunostaining in few neuroendocrine cells of the appendix mucosa



Appendix, mucosa - Moderate INSM1 positivity in few neuroendocrine cells of the appendix mucosa

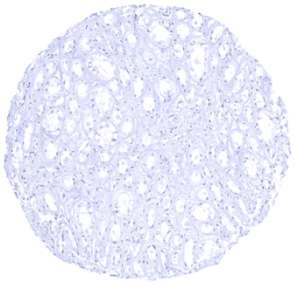


Breast

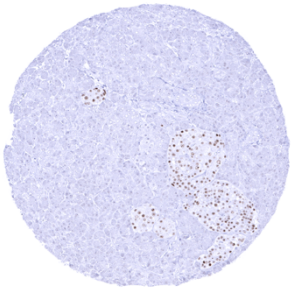


Duodenum, mucosa - Weak to moderate INSM1 positivity in few neuroendocrine cells of the duodenum

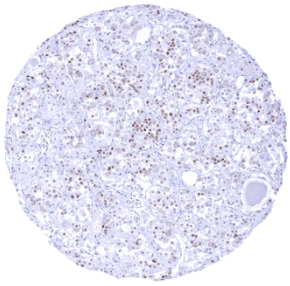
Ileum, mucosa - Moderate INSM1 positivity in few neuroendocrine cells of the ileum mucosa



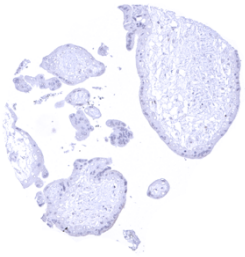
Kidney, medulla



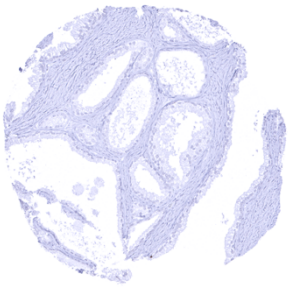
Pancreas - Moderate INSM1 immunostaining in most cells of Langerhans islets of the pancreas



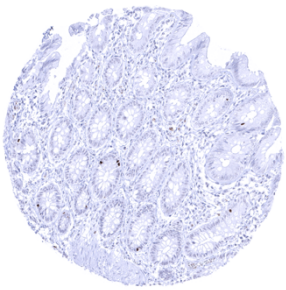
Pituitary, posterior lobe infundibulum - Moderate to strong INSM1 immunostaining of a fraction of epithelial cells in the adenohypophysis



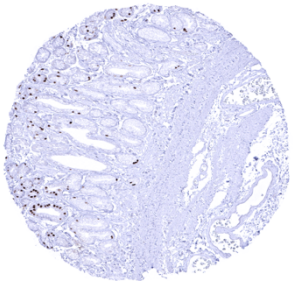
Placenta, early



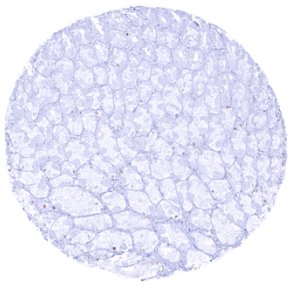
Prostate



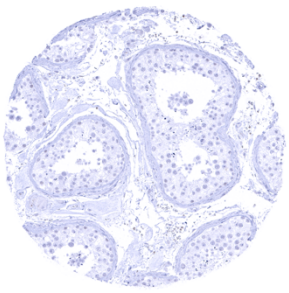
Rectum, mucosa - Moderate INSM1 positivity in few neuroendocrine cells of the rectal mucosa



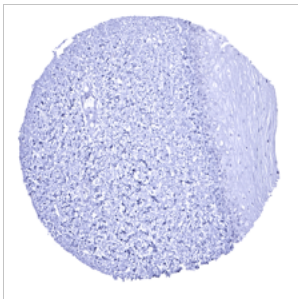
Stomach, antrum - Strong INSM1 positivity in neuroendocrine cells of the stomach antrum



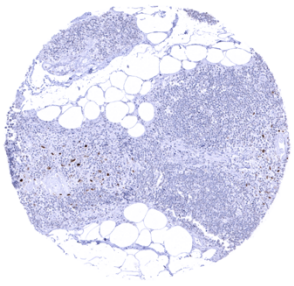
Stomach, corpus - Weak to moderate INSM1 positivity in few neuroendocrine cells of the stomach corpus



Testis



Thymus - A moderate to strong INSM1 immunostaining is seen in few scattered thymic epithelial cells in the thymic medulla



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