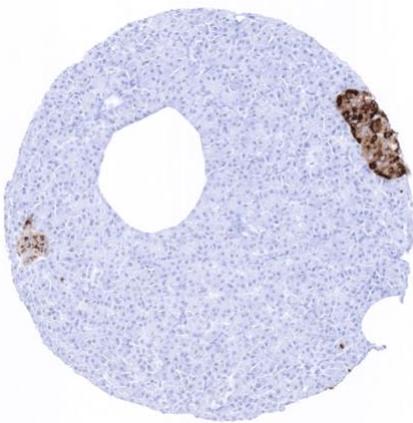


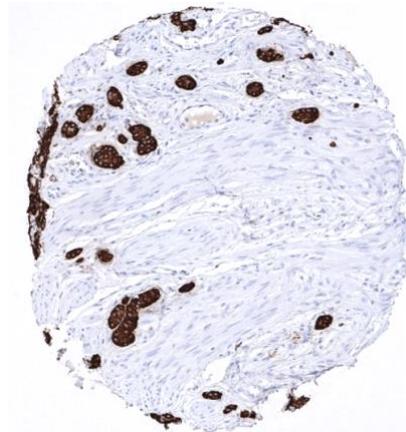
Anti - Chromogranin A Antibody MSVA-380R / Recombinant Rabbit monoclonal

Human SwissProt	P10645
Human Gene Symbol	CHGA
Synonyms	Beta-Granin; CGA; CHGA; Chromogranin A Parathyroid Secretory Protein 1; ER-37; Pancreastatin; Parastatin; Parathyroid Secretory Protein 1; Pituitary Secretory Protein I; SP-I; Vasostatin I or II
Specificity	Chromogranin A
Immunogen	Recombinant fragment of human Chromogranin A
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Finely granular cytoplasmic

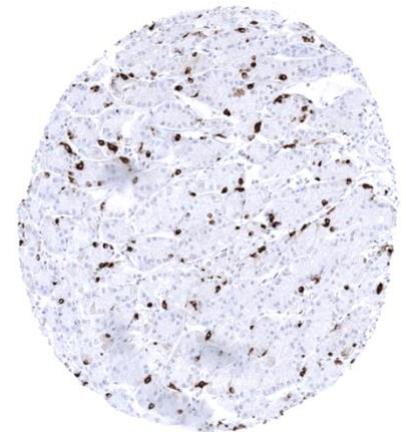
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Positive Control	Appendix: An at least weak to moderate staining must be seen in the axons and ganglion cells of the peripheral nerves while mucosal neuroendocrine cells exhibit a strong staining (neuroendocrine cells are not sufficient as positive controls because they express CGA so strongly, that even inefficient staining will detect its expression)
Negative Control	Appendix: Epithelial and smooth muscle cells should be negative.



Islet cells of the pancreas show intense chromogranin A staining.



Neuroendocrine tumor of the appendix showing strong chromogranin A immunostaining.



Strong chromogranin A expression in scattered neuroendocrine cells of stomach antrum glands.

Biology

Chromogranin A (CGA) is an important marker of the diffuse neuroendocrine system (DNES) and represents more than 50% of the soluble matrix protein in secretory granules of various types of neuroendocrine cells. It induces and promotes the generation of secretory vesicles of endocrine cells and neurons. Post-translational processing of the protein results in biologically active peptides that exert autocrine and paracrine functions. These peptides for example include chromostatin, chromacin, pancreastatin, catestatin, parastatin vasostatin-1, and vasostatin-2. The function of some of these peptides is known and affects mechanisms such as contraction and relaxation of vascular smooth muscle cells, microglial neurotoxin secretion, dopamine release from neural tissues or catecholamine release from the adrenal medulla. Chromogranin A is strongly expressed in the medulla but not the cortex of the adrenal gland, the parathyroid, and the anterior lobe of the pituitary gland (adenohypophysis). It is also strongly expressed in scattered cells of the diffuse neuroendocrine system, which are especially seen in the gastrointestinal epithelium (including Brunner glands), endocervical epithelium and the skin. A weak to moderate immunostaining is also seen in axons and ganglion cells of the peripheral nerves in the gastrointestinal wall.

Potential Research Applications

- The prevalence and clinical significance of chromogranin A immunostaining in cancers of different types should be thoroughly evaluated.
- The role of neuroendocrine trans-differentiation in cancer is of critical interest, especially in prostate cancer.

Protocol Suggestions

Dilution: 1:1 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

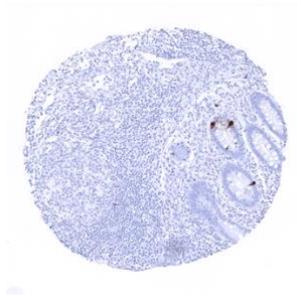
This antibody is available for **research use only** and is not approved for use in diagnostics.
Not for resale without express authorization.

Warranty

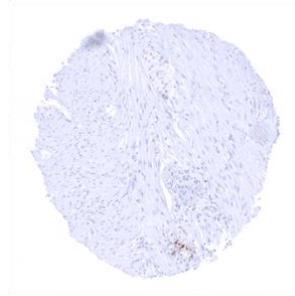
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



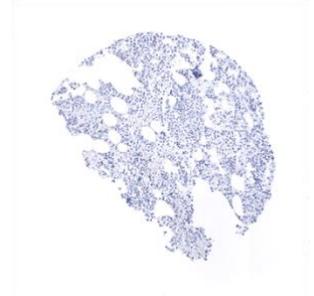
Adrenal gland



Appendix, mucosa



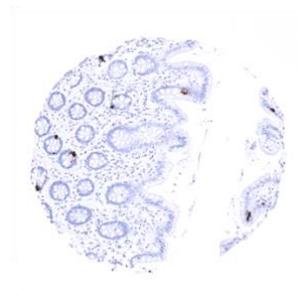
Appendix, muscular wall - Weak chromogranin A immunostaining is seen in axons and ganglion cells of the peripheral nerves



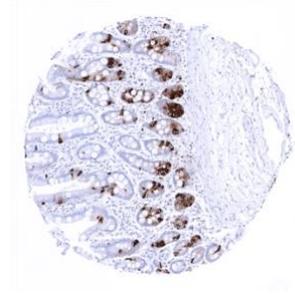
Bone marrow



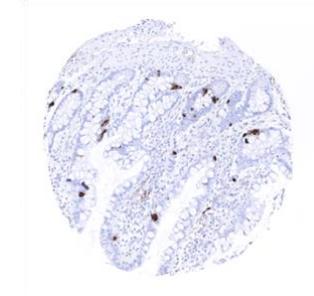
Cerebrum, white



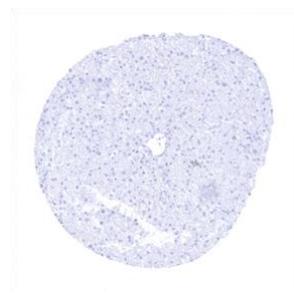
Colon descendens, mucosa



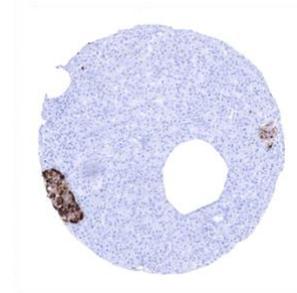
Duodenum, mucosa - Expression of chromogranin A is so strong in gastrointestinal epithelial cells, that diffusion of immunostaining towards adjacent cells can occur



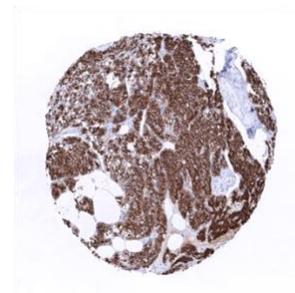
Ileum, mucosa



Liver



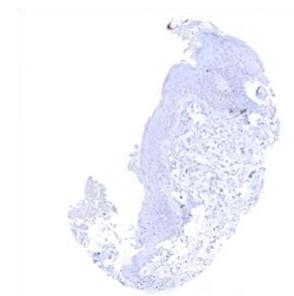
Pancreas - Strong chromogranin A positivity in islets of Langerhans



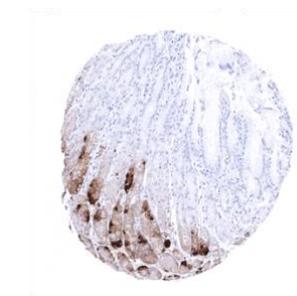
Parathyroid



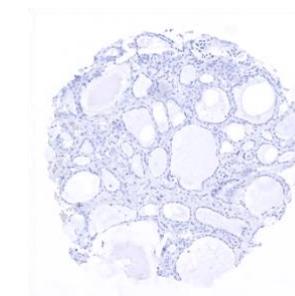
Pituitary, anterior lobe



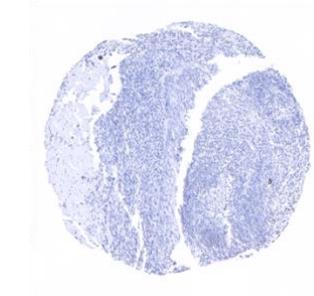
Skin - Few neuroendocrine (Merkel-) cells show chromogranin A immunostaining



Stomach, corpus (Expression of chromogranin A is so strong in gastrointestinal epithelial cells, that diffusion of immunostaining towards adjacent cells can occur)



Thyroid gland



Tonsil