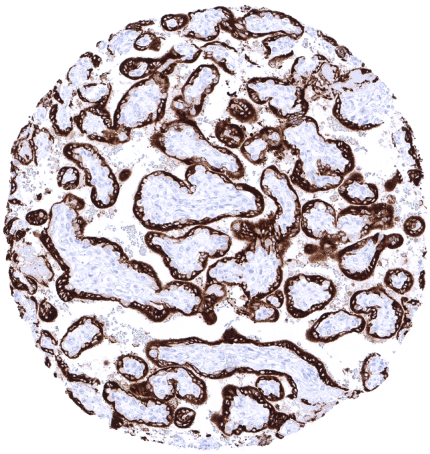
MS Validated Antibodies GmbH
Bergstedter Chaussee 62a
22395 Hamburg, Germany
Tel: +49 (0) 40 89 72 55 81
E-Mail:info@ms-validatedantibodies.com
Website: ms-validatedantibodies.com

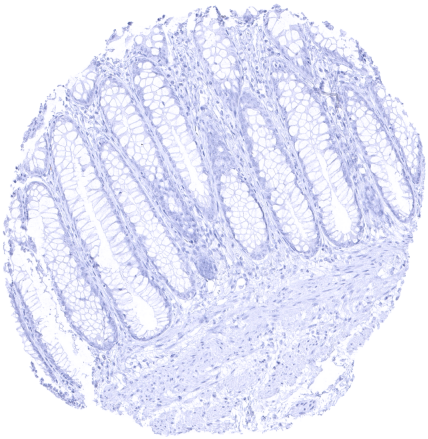
Anti-Growth Hormone Antibody
MSVA-405M / Mouse monoclonal

Human SwissProt	P01241
Human Gene Symbol	GH1
Synonyms	GH-N; GH1; Growth hormone 1; HG1; hGH-N; IGHD1B; Pituitary growth hormone; RNGHGP; Somatotropin
Specificity	Growth Hormone
Immunogen	Recombinant fragment of human GH1 protein
Isotype	Mouse / IgG
Species Reactivity	Human
Localization	Cytoplasmic

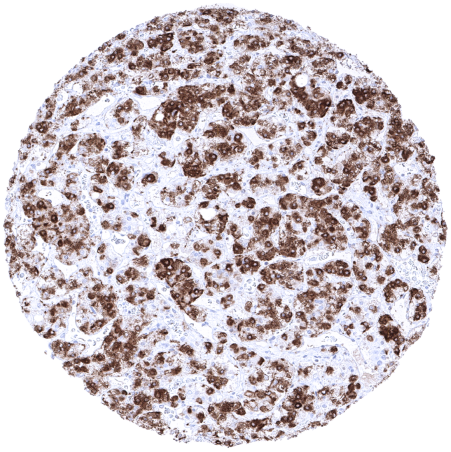
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. A ntibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Positive Control	Placenta: trophoblastic cells should stain positive.
Negative Control	Colon: GH staining should be absent in all epithelial and stromal cells.



A strong cytoplasmic GH staining is seen in the majority of cells in the syncytiotrophoblastic cells of the placenta. GH staining is weaker in the cytotrophoblast.



GH staining is completely absent in all epithelial and stromal cells of the rectum mucosa.



A strong cytoplasmic GH staining is seen in the majority of cells in the adenohypophysis.

Biology

Growth hormone (GH), also called somatotropin, is a polypeptide hormone secreted mainly by the somatotrophs of the anterior pituitary gland. The two genes of h-GH (human GH), GH1 and GH2 are located in a cluster of 5 very similar genes on the long arm of chromosome 17q 23.3. The transcription of GH1 occurs in the pituitary gland and gives rise to two isoforms of 20 kDa (the most abundant) and an alternate splicing of 22 kDa. These two hormones exert an endocrine role at the peripheral level. The transcription of the GH2 gene only takes place in the syncytiotrophoblast of the placenta during gestation. It gives rise to a 22kDA protein called hGH-V (human GH-variant) which plays a major role in materno-fetal development. Growth hormone plays a major role in postnatal growth but is also essential for metabolic regulation. Its peripheral receptors are almost ubiquitous, and its main signalling pathway is mediated through JAK2 activation. Secretion of pituitary growth hormone (GH) is stimulated by the hypothalamic GH-releasing hormone (GHRH). Among normal tissues, a cytoplasmatic growth hormone staining is only seen in trophoblastic cells of the placenta and in a variable number of epithelial cells of the adenohypophysis. Growth hormone immunostaining is absent in all other tissues. Among tumors, GH immunostaining is seen in growth hormone producing pituitary gland tumors. Ectopic GH expression appears to occur only very rarely in other tumor entities.

Potential Research Applications

- Growth hormone is discussed as an autocrine/paracrine factor in various cancer types.

Protocol Suggestions

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

Limitations

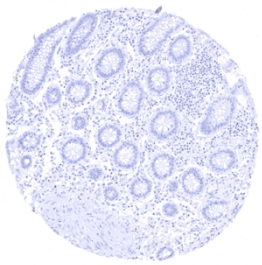
This antibody is available for **research use only** and is not approved for use in diagnostics. Not for resale without express authorization.

Warranty

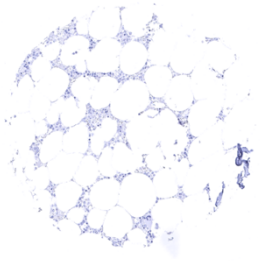
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.

MS
Validated Antibodies

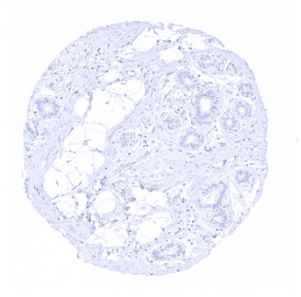
MS Validated Antibodies GmbH
Bergstedter Chaussee 62a
22395 Hamburg, Germany
Tel: +49 (0) 40 89 72 55 81
E-Mail:info@ms-validatedantibodies.com
Website: ms-validatedantibodies.com



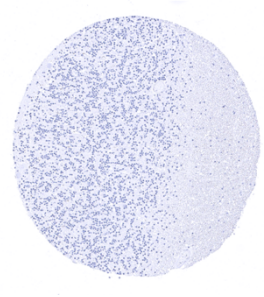
Appendix, mucosa



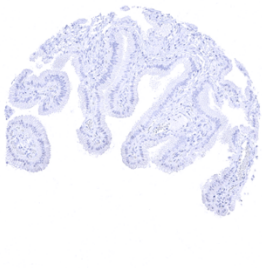
Bone marrow



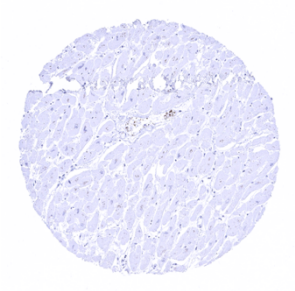
Breast



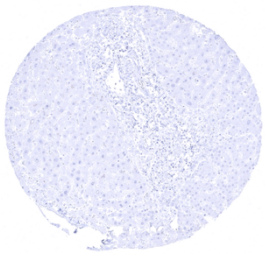
Cerebellum, grey (Stratum neuronorum)



Kidney, medullaa Gallbladder, epithelium

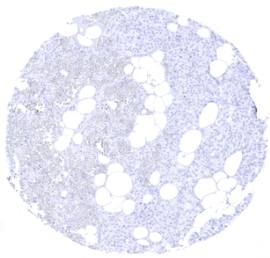


Heart

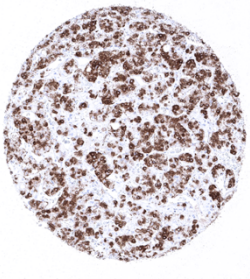


Liver

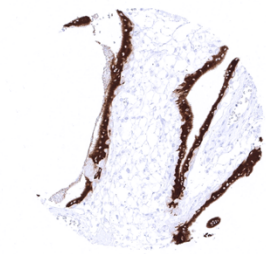
Lung



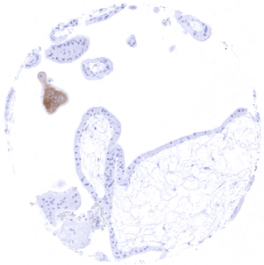
Parathyroid



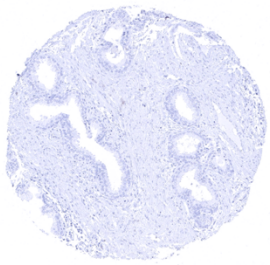
Pituitary, anterior lobe



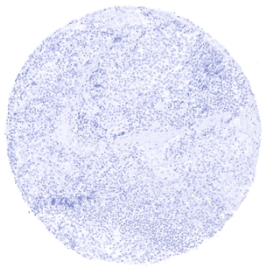
Placenta, early



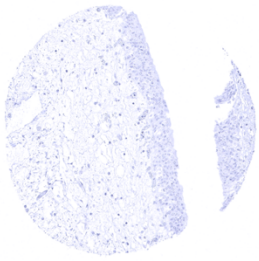
Placenta, early



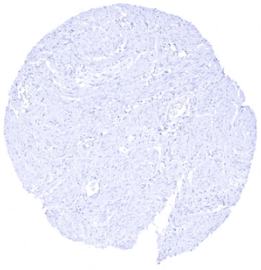
Prostate



Tonsil



Urinary bladder, urothelium



Uterus, myometrium