

Product Datasheet

Chromogranin A Antibody - BSA Free NB120-15160

Unit Size: 1 ml

Store at -20C. Avoid freeze-thaw cycles.

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NB120-15160

Chromogranin A Antibody - BSA Free

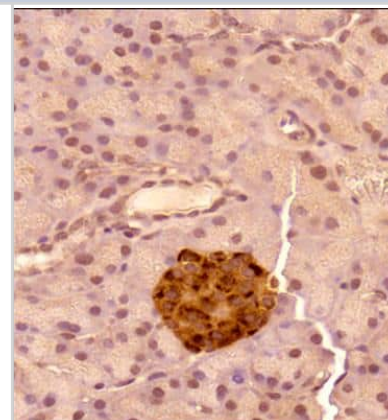
Product Information	
Unit Size	1 ml
Concentration	1.0 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	70 kDa

Product Description	
Host	Rabbit
Gene ID	1113
Gene Symbol	CHGA
Species	Human, Mouse, Rat
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 27472443).
Immunogen	Recombinant full length protein (Human).

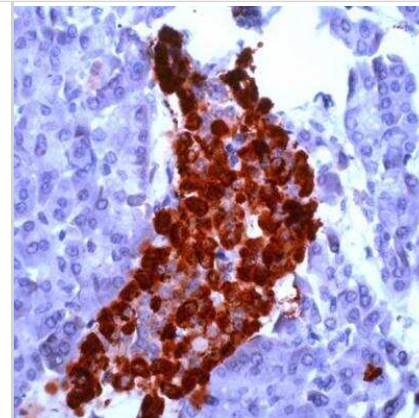
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot reported in scientific literature (PMID 32818433), Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500. Use reported in scientific literature (PMID 22114116), Immunohistochemistry-Paraffin 1:500 - 1:1000
Application Notes	IHC-P: Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min. Note: Optimal dilutions/concentrations should be determined by the end user.

Images

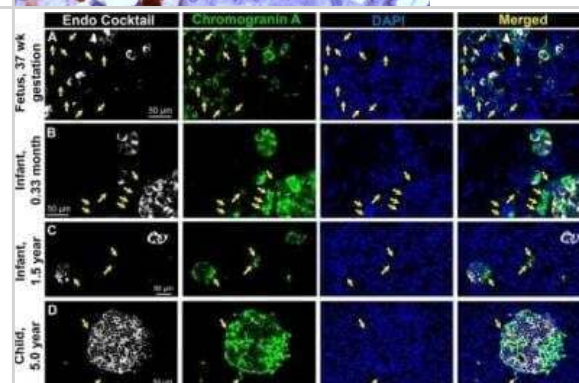
Immunohistochemistry-Paraffin: Chromogranin A Antibody [NB120-15160] - IHC analysis of a formalin fixed paraffin embedded tissue section of mouse pancreas using Chromogranin A antibody at a dilution of 1:500. The signal was developed using HRP-conjugated anti-rabbit secondary and DAB reagent which followed counterstaining of the section with hematoxylin. The antibody generated a strong staining in Islets of Langerhans. Also, in the periphery of the cells, the pattern of staining was punctate representing the vesicles with Chromogranin A. Cells of lobules and acini showed a weak cytoplasmic and nuclear staining which is potentially the secreted pool of Chromogranin A.



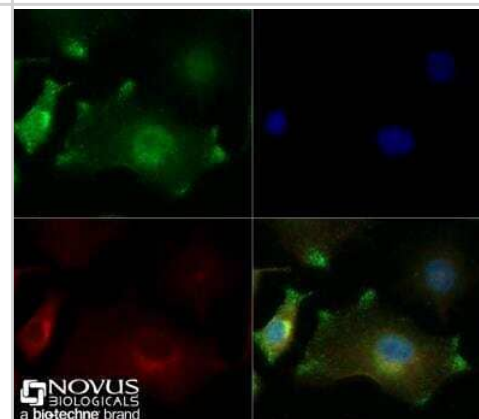
Immunohistochemistry: Chromogranin A Antibody [NB120-15160] - IHC-P analysis fo human pancreas tissue showing specific staining of Chromogranin A in the Islets of Langerhans (dark brown staining).



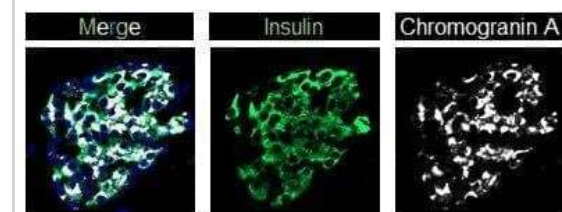
Immunocytochemistry/Immunofluorescence: Chromogranin A Antibody [NB120-15160] - The frequency of chromogranin A positive hormone-negative (CPHN) cells decreases with age. Representative pancreatic sections from fetal (A) and infant-child (B-D) cases immunostained for Endocrine cocktail (insulin, glucagon, somatostatin, pancreatic polypeptide, and ghrelin) (white), chromogranin A (green), and DAPI (blue). Yellow arrows show CPHN cells. Scale bars, 50 μ m. Image collected and cropped by CiteAb from the following publication (<https://www.frontiersin.org/article/10.3389/fendo.2018.00791/full>), licensed under a CC-BY license.



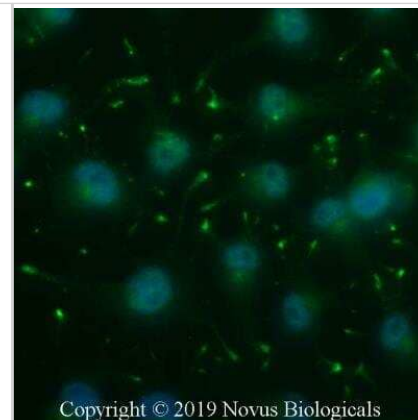
Immunocytochemistry/Immunofluorescence: Chromogranin A Antibody [NB120-15160] - SH-SY5Y cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-Chromogranin A at 5 μ g/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin (DM1A) NB100-690 was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



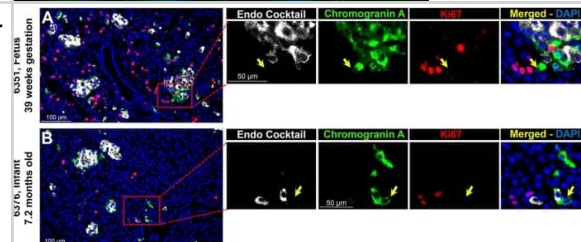
Immunocytochemistry/Immunofluorescence: Chromogranin A Antibody [NB120-15160] - Mouse pancreas cryosections stained with insulin (DAKO, Green) and Chromogranin A (NB120-15160; 1:500; White)



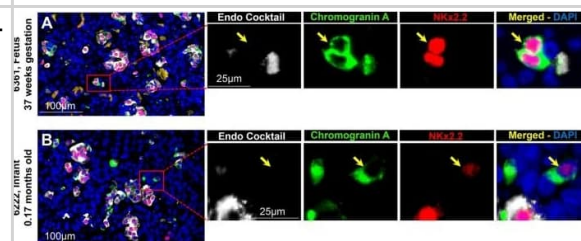
Immunocytochemistry/Immunofluorescence: Chromogranin A Antibody [NB120-15160] - Neuro2a cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton-X100. The cells were incubated with anti-Chromogranin A Antibody at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



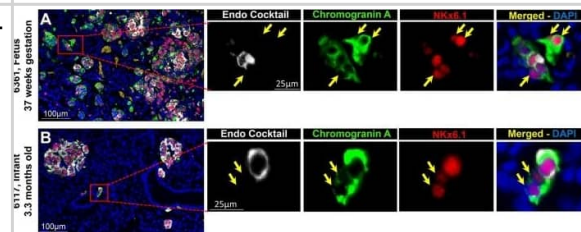
Immunocytochemistry/ Immunofluorescence: Chromogranin A Antibody - BSA Free [NB120-15160] - ChromograninA positive hormone-negative (CPHN) cells do not replicate during fetal & infant life. Representative pancreatic sections from fetal (A) & infant (B) donors immunostained for Endocrine cocktail (insulin, glucagon, somatostatin, pancreatic polypeptide, & ghrelin) (white), chromograninA (green), Ki67 (red), & DAPI (blue). Yellow arrows indicate CPHN cells. CPHN cells were rarely positive for Ki67 staining in both fetal & infant groups; no detectable difference was found in the frequency of replicative CPHN cells between fetal & infant pancreatic sections. Scale bars: 100 μ m for low power & 50 μ m for high magnification images. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30687234>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: Chromogranin A Antibody - BSA Free [NB120-15160] - ChromograninA positive hormone-negative (CPHN) cells express the beta-cell differentiation transcription factor NKX2.2 in both fetuses & infants. Representative pancreatic sections from fetal (A) & infant (B) donors immunostained for Endocrine cocktail (insulin, glucagon, somatostatin, pancreatic polypeptide, & ghrelin) (white), chromograninA (green), the transcription factor NKX2.2 (red) & DAPI (blue). Yellow arrows indicate CPHN cells. Scale bars: 100 μ m for low power & 25 μ m for high magnification images. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30687234>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: Chromogranin A Antibody - BSA Free [NB120-15160] - ChromograninA positive hormone-negative (CPHN) cells express the endocrine differentiation transcription factor NKX6.1 in both fetal & infant pancreas. Representative pancreatic sections from fetal (A) & infant (B) donors immunostained for Endocrine cocktail (insulin, glucagon, somatostatin, pancreatic polypeptide, & ghrelin) (white), chromograninA (green), the transcription factor NKX6.1 (red) & DAPI (blue). Yellow arrows indicate CPHN cells. Scale bars: 100 μ m for low power & 25 μ m for high magnification images. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30687234>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Ana E Carvajal, José M Serrano-Morales, María D Vázquez-Carretero, Pablo García-Miranda, María L Calonge, María J Peral, Anunciación A Ilundain Reelin protects from colon pathology by maintaining the intestinal barrier integrity and repressing tumorigenic genes. *Biochimica et biophysica acta. Molecular basis of disease* 2018-11-27 [PMID: 28572005]

J Yun, S Hansen, O Morris, DT Madden, CP Libeu, AJ Kumar, C Wehrfritz, AH Nile, Y Zhang, L Zhou, Y Liang, Z Modrusan, MB Chen, CC Overall, D Garfield, J Campisi, B Schilling, RN Hannoush, H Jasper Senescent cells perturb intestinal stem cell differentiation through Ptk7 induced noncanonical Wnt and YAP signaling *Nature Communications*, 2023-01-11;14(1):156. 2023-01-11 [PMID: 36631445]

Mathijs P Verhagen, Rosalie Joosten, Mark Schmitt, Niko Välimäki, Andrea Sacchetti, Kristiina Rajamäki, Jiahn Choi, Paola Procopio, Sara Silva, Berdine van der Steen, Thierry P P van den Bosch, Danielle Seinstra, Annemarie C de Vries, Michail Doukas, Leonard H Augenlicht, Lauri A Aaltonen, Riccardo Fodde Non-stem cell lineages as an alternative origin of intestinal tumorigenesis in the context of inflammation. *Nature genetics* 2024-06-20 [PMID: 38902475]

Verhagen MP, Joosten R, Schmitt M et al. The origin of intestinal cancer in the context of inflammation bioRxiv : the preprint server for biology 2023-11-01 [PMID: 37873142] (IHC-P, Mouse)

Wong AC, Devason AS, Umana IC et al. Serotonin reduction in post-acute sequelae of viral infection *Cell* 2023-10-26 [PMID: 37848036] (IF/ICC, Human)

Tixi W, Maldonado M, Chang YT et al. Coordination between ECM and cell-cell adhesion regulates the development of islet aggregation, architecture, and functional maturation *eLife* 2023-08-23 [PMID: 37610090]

Reck J, Beuret N, Demirci E et al. Small disulfide loops in peptide hormones mediate self-aggregation and secretory granule sorting *Life Science Alliance* 2022-05-01 [PMID: 35086936]

Doornebal EJ, Harris N, Riva A et al. Human Immunocompetent Model of Neuroendocrine Liver Metastases Recapitulates Patient-Specific Tumour Microenvironment *Front Endocrinol (Lausanne)* 2022-07-13 [PMID: 35909511] (Immunohistochemistry)

Parchure A, Tian M, Stalder D et al. Liquid-liquid phase separation facilitates the biogenesis of secretory storage granules *The Journal of cell biology* 2022-12-05 [PMID: 36173346] (Immunocytochemistry/ Immunofluorescence, Rat)

Co JY, Klein JA, Kang S, Homan KA Suspended hydrogel culture as a method to scale up intestinal organoids *Scientific reports* 2023-06-27 [PMID: 37369732] (Immunohistochemistry, Human)

Hu X, White K, Olroyd AG et al. Hypoimmune induced pluripotent stem cells survive long term in fully immunocompetent, allogeneic rhesus macaques *Nature biotechnology* 2023-05-08 [PMID: 37156915] (ICC/IF, Human)

Details:
Dilution: 1:20

Shayeganpour K Creation of a Humanized Mouse Model to Study Islet Graft Rejection Thesis 2022-01-01 (IHC, Human)

More publications at <http://www.novusbio.com/NB120-15160>

Procedures

Immunohistochemistry-Paraffin Protocol for Chromogranin A Antibody (NB120-15160)

Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.





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Products Related to NB120-15160

NBL1-09149	Chromogranin A Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

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