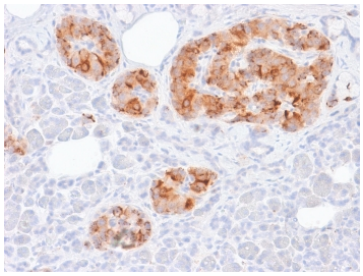
Chromogranin A Antibody Recombinant Mouse MAb [clone rCHGA/413] (V3622)

Catalog No.	Formulation	Size
V3622-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3622-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3622SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

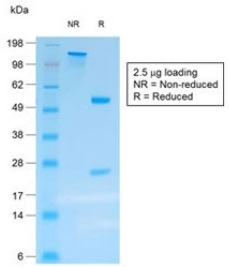
Recombinant MOUSE MONOCLONAL

Bulk quote request

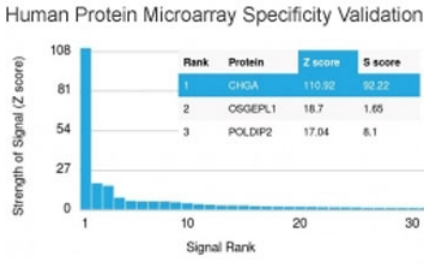
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rCHGA/413
Purity	Protein G affinity chromatography
UniProt	P10645
Localization	Finely granular cytoplasmic
Applications	Immunohistochemistry (FFPE): 0.25-0.5ug/ml for 30 min at RT
Limitations	This Chromogranin A antibody is available for research use only.



Immunohistochemistry of Chromogranin A Antibody Recombinant Mouse MAb in human pancreas. Formalin-fixed, paraffin-embedded human pancreatic tissue stained with recombinant Chromogranin A antibody (clone rCHGA/413) demonstrates strong cytoplasmic granular staining within islets of Langerhans, consistent with CHGA expression in pancreatic neuroendocrine cells, while surrounding exocrine acinar tissue shows minimal staining. Heat-induced epitope retrieval was performed by boiling tissue sections in 10mM citrate buffer, pH 6, for 10-20 minutes followed by cooling at room temperature for 20 minutes prior to testing.



SDS-PAGE analysis of purified, BSA-free recombinant Chromogranin A antibody (clone rCHGA/413) as confirmation of integrity and purity.



Human Protein Microarray Specificity Validation of Chromogranin A Antibody Recombinant Mouse MAb (clone rCHGA/413). Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins demonstrates preferential binding of the recombinant rCHGA/413 monoclonal antibody to CHGA, with a markedly elevated Z-score compared to all other proteins on the array. The high S-score supports strong specificity for Chromogranin A relative to off-target proteins. Z-score represents signal intensity in standard deviations above the array mean, while S-score reflects the difference between the top-ranked target and the next highest signal, providing a quantitative measure of antibody specificity. These results confirm the protein microarray validated specificity of clone rCHGA/413.

Description

Chromogranin A antibody recognizes Chromogranin A, a secretory granule glycoprotein encoded by the CHGA gene and a well-established marker of neuroendocrine differentiation. Chromogranin A Antibody Recombinant Mouse MAb (clone rCHGA/413) is engineered through recombinant expression to provide consistent performance and lot-to-lot reproducibility in research applications. Chromogranin A localizes predominantly to the cytoplasm within dense-core secretory vesicles of endocrine and neuroendocrine cells, where it contributes to hormone storage, granule maturation, and regulated secretion.

Chromogranin A antibody, also referred to as CHGA antibody, CgA antibody, and CGA antibody in the literature, targets a member of the granin family of acidic secretory proteins. Following synthesis, Chromogranin A undergoes proteolytic processing to generate biologically active peptides such as vasostatin, pancreastatin, and catestatin. These peptides are involved in modulation of cardiovascular tone, glucose metabolism, and neuroendocrine signaling pathways. Within the trans-Golgi network, Chromogranin A promotes aggregation of peptide hormones and supports formation of stable dense-core secretory granules.

CHGA expression is characteristic of adrenal medulla chromaffin cells, pancreatic islet cells, gastrointestinal enteroendocrine cells, parathyroid gland, and dispersed neuroendocrine cell populations throughout multiple organ systems. The expected staining pattern is cytoplasmic granular positivity reflecting localization to secretory vesicles. Because of this lineage-restricted distribution, Chromogranin A is widely used in research to identify neuroendocrine differentiation and to study secretory pathway biology.

In tumor biology investigations, Chromogranin A expression is frequently evaluated in neuroendocrine neoplasms including carcinoid tumors, pancreatic neuroendocrine tumors, small cell carcinoma, medullary thyroid carcinoma, and pheochromocytoma. Strong cytoplasmic staining supports neuroendocrine lineage, whereas most non-neuroendocrine carcinomas demonstrate limited or absent expression. Chromogranin A Antibody Recombinant Mouse MAb (clone rCHGA/413) enables reliable detection of Chromogranin A expression patterns in normal and neoplastic tissues for research use at NSJ Bioreagents.

This Chromogranin A antibody is part of a broader CHGA antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the Chromogranin A antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human protein was used as the immunogen for the Chromogranin A antibody.

Storage

Store the Chromogranin A antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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