

DATA SHEET

Chromogranin A Ab-1 (Lk2H10)

Mouse Monoclonal Antibody

 $Cat. \#DLN-08952, -08953, or -08951 \ (0.1ml, 0.5ml, or 1.0ml \ at \ 200\mu g/ml) \ (Purified \ Ab \ with \ BSA \ and \ Azide)$

Cat. #DLN-08954 or -08955 (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #DLN-08949, -08950, or -08948 (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)

Catalog #DLN-08956 (7.0ml)

Description: Chromogranin A (a protein of 439-amino acid which is encoded on chromosome 14) is present in neuroendocrine cells throughout the body, including the neuroendocrine cells of the large and small intestine, adrenal medulla and pancreatic islets. It is an excellent marker for carcinoid tumors, pheo-chromocytomas, paragangliomas, and other neuro-endocrine tumors. Coexpression of chromogranin A and neuron specific enolase (NSE) is common in neuroendocrine neoplasms.

Mol. Wt. of Antigen: 68-75kDA

Epitope: Cytoplasmic domain

Species Reactivity: Human, Monkey, Pig, Rat, and Rabbit. Others-not known.

Clone Designation: LK2H10

Ig Isotype: IgG_1/κ

Immunogen: Human pheochromocytoma.¹

Applications and Suggested Dilutions:

• Western Blotting

(Ab 1-2µg/ml for 2hrs at RT)

• Immunohistology (Formalin/paraffin)

(Use Ab at 1:800 for 20 minutes at RT)

[Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min., and use of a high-sensitivity detection system

The optimal dilution for a specific application should be determined by the investigator.

Staining tips: If the staining is too light, use lower dilution or longer time. If the staining is too strong, use higher dilution or shorter time.

Positive Control: PC-12 cells. Pancreas.

Cellular Localization: Cytoplasmic.

Supplied As:

 $200\mu g/ml$ antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.



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Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8 $^{\circ}$ C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0 $^{\circ}$ C.

Key References:

1. Lloyd RV, et. al. Science, 1983, 222:628-30.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Dianova is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only

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Additional Key References:

- 1. Battersby S; Dely CJ; Hopkinson HE; Anderson TJ. The nature of breast dense core granules: chromogranin reactivity. Histopathology, 1992 Feb, 20(2):107-14.
- **2.** Lukinius A; Wilander E; Eriksson B; Oberg K. A chromogranin peptide is co-stored with insulin in the human pancreatic islet B-cell granules. Histochemical Journal, 1992 Sep, 24(9):679-84.
- **3.** Wirnsberger GH; Becker H; Ziervogel K; Hofler H. Diagnostic immunohistochemistry of neuroblastic tumors. American Journal of Surgical Pathology, 1992 Jan, 16(1):49-57.
- **4.** Diepholder HM; Schwechheimer K; Mohadjer M; Knoth R; Volk B. A clinicopathologic and immunomorphologic study of 13 cases of ganglioglioma. Cancer, 1991, 68(10):2192-201.
- **5.** Kalina M; Grimelius L. Chromogranins or chromogranin-like proteins are present in lamellar bodies and pulmonary surfactant of rat alveolar type II cells. Journal of Histochemistry and Cytochemistry, 1991 Feb, 39(2):213-20.
- **6.** Munoz DG. Chromogranin A-like immunoreactive neurites are major constituents of senile plaques. Laboratory Investigation, 1991, 64(6):826-32.
- 7. Weihe E; Horsch D; Eiden LE; Hartschuh W. Dual presence of chromogranin A-like immunoreactivity in a population of endocrine-like cells and in nerve fibers in the human anal canal. Neuroscience Letters, 1991 Sep 16, 130(2):190-4.
- **8.** Andreola S; Lombardi L; Audisio RA; Mazzaferro V; Koukouras D; Doci R; Gennari L; Makowka L; Starzl TE; van Thiel DH. A clinicopathologic study of primary hepatic carcinoid tumors. Cancer, 1990 Mar 1, 65(5):1211-8.
- **9.** Becker H; Wirnsberger G; Ziervogel K; Hofler H. Immunohistochemical markers in (ganglio)neuroblastomas. Acta Histochemica. Supplementband, 1990, 38:107-14.
- 10. McAuliffe WG; Hess A. Human chromogranin A-like immunoreactivity in the Bergmann glia of the rat brain. Glia, 1990, 3(1):13-6
- 11. Munoz DG; Kobylinski L; Henry DD; George DH. Chromogranin A-like immunoreactivity in the human brain: distribution in bulbar medulla and cerebral cortex. Neuroscience, 1990, 34(3):533-43.
- 12. Chang TK; Li CY; Smithson WA. Immunocytochemical study of small round cell tumors in routinely processed specimens. Archives of Pathology and Laboratory Medicine, 1989 Dec, 113(12):1343-8.
- 13. Hawkins KL; Lloyd RV; Toy KA. Immunohistochemical localization of chromogranin A in normal tissues from laboratory animals. Veterinary Pathology, 1989 Nov, 26(6):488-98.
- **14.** Lloyd RV; Iacangelo A; Eiden LE; Cano M; Jin L; Grimes M. Chromogranin A and B messenger ribonucleic acids in pituitary and other normal and neoplastic human endocrine tissues. Laboratory Investigation, 1989 Apr, 60(4):548-56.
- **15.** Hearn SA. Electron microscopic localization of chromogranin A in osmium-fixed neuroendocrine cells with a protein A-gold technique. Journal of Histochemistry and Cytochemistry, 1987 Jul, 35(7):795-801.
- **16.** Wahl RL; Wilson BS; Liebert M; Beierwaltes WH. High-dose, unlabeled, nonspecific antibody pretreatment: influence on specific antibody localization to human melanoma xenografts. Cancer Immunology, Immunotherapy, 1987, 24(3):221-4.
- 17. Aguirre P; Scully RE; Wolfe HJ; DeLellis RA. Argyrophil cells in Brenner tumors: histochemical and immunohistochemical analysis. Int Journal of Gynecological Pathology, 1986, 5(3):223-34.
- **18.** Wilson BS; Phan SH; Lloyd RV. Chromogranin from normal human adrenal glands: purification by monoclonal antibody affinity chromatography and partial N-terminal amino acid sequence. Regulatory Peptides, 1986 Feb, 13(3-4):207-23.
- 19. Bussolati G; Gugliotta P; Sapino A; Eusebi V; Lloyd RV. Chromogranin-reactive endocrine cells in argyrophilic carcinomas ("carcinoids") and normal tissue of the breast. American Journal of Pathology, 1985 Aug, 120(2):186-92.
- **20.** Varndell IM; Lloyd RV; Wilson BS; Polak JM. Ultrastructural localization of chromogranin: a potential marker for the electron microscopical recognition of endocrine cell secretory granules. Histochemical Journal, 1985 Sep, 17(9):981-92.
- **21.** DeStephano DB; Lloyd RV; Pike AM; Wilson BS. Pituitary adenomas. An immunohistochemical study of hormone production and chromogranin localization. American Journal of Pathology, 1984 Sep, 116(3):464-72.