# SANTA CRUZ BIOTECHNOLOGY, INC.

# SUCLG2 (A-2): sc-390818



BACKGROUND

SUCLG2 (succinate-CoA ligase, GDP-forming,  $\beta$  subunit), also known as G- $\beta$ , succinyl-CoA ligase [GDP-forming] subunit  $\beta$ , mitochondrial, GTP-specific succinyl-CoA synthetase subunit  $\beta$ , succinyl-CoA synthetase  $\beta$ -G chain or SCS- $\beta$ G, is a 432 amino acid protein belonging to the succinate/malate CoA ligase  $\beta$  subunit family. SUCLG2 is widely expressed, localizes to mitochondria and contains one ATP-grasp domain. SUCLG2 dimerizes with SUCLG1 (succinyl-CoA synthetase) to form G-SCS, a GTP specific enzyme. SUCLG2 has an active role in the tricarboxylic acid cycle of carbohydrate metabolism by catalyzing the reaction of GTP, succinate and CoA to form GDP, a phosphate and succinyl-CoA. The gene encoding SUCLG2 maps to human chromosome 3p14.1.

### REFERENCES

- Johnson, J.D., et al. 1998. Genetic evidence for the expression of ATPand GTP-specific succinyl-CoA synthetases in multicellular eucaryotes. J. Biol. Chem. 273: 27580-27586.
- 2. Schiaffino, M.V., et al. 1999. Ocular albinism: evidence for a defect in an intracellular signal transduction system. Nat. Genet. 23: 108-112.
- 3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603922. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

#### **CHROMOSOMAL LOCATION**

Genetic locus: SUCLG2 (human) mapping to 3p14.1; Suclg2 (mouse) mapping to 6 D2.

## SOURCE

SUCLG2 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 256-287 within an internal region of SUCLG2 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG\_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SUCLG2 (A-2) is available conjugated to agarose (sc-390818 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390818 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390818 PE), fluorescein (sc-390818 FITC), Alexa Fluor<sup>®</sup> 488 (sc-390818 AF488), Alexa Fluor<sup>®</sup> 546 (sc-390818 AF546), Alexa Fluor<sup>®</sup> 594 (sc-390818 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-390818 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-390818 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-390818 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390818 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

SUCLG2 (A-2) is recommended for detection of SUCLG2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SUCLG2 (A-2) is also recommended for detection of SUCLG2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SUCLG2 siRNA (h): sc-77883, SUCLG2 siRNA (m): sc-153914, SUCLG2 shRNA Plasmid (h): sc-77883-SH, SUCLG2 shRNA Plasmid (m): sc-153914-SH, SUCLG2 shRNA (h) Lentiviral Particles: sc-77883-V and SUCLG2 shRNA (m) Lentiviral Particles: sc-153914-V.

Molecular Weight of SUCLG2: 47 kDa.

Positive Controls: SUCLG2 (m): 293T Lysate: sc-123832, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

# DATA





SUCLG2 (A-2): sc-390818. Western blot analysis of SUCLG2 expression in non-transfected 293T: sc-117752 (**A**), mouse SUCLG2 transfected 293T: sc-123832 (**B**), HeLa (**C**), Hep G2 (**D**), K-562 (**E**) and A-431 (**F**) whole cell lysates.

SUCLG2 (A-2): sc-390818. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

## SELECT PRODUCT CITATIONS

- Xu, Z.W., et al. 2016. SILAC-based proteomic analysis reveals that salidroside antagonizes cobalt chloride-induced hypoxic effects by restoring the tricarboxylic acid cycle in cardiomyocytes. J. Proteomics 130: 211-220.
- 2. Wang, Y., et al. 2022. Value of immunohistochemical expression of apelin, succinate dehydrogenase B, chromogranin B, human epidermal growth factor receptor-2, contactin 4, and succinyl-CoA synthetase subunit  $\beta$  in differentiating metastatic from non-metastatic pheochromocytoma and paraganglioma. Front. Endocrinol. 13: 882906.
- Antona, A., et al. 2023. Targeting lysine-specific demethylase 1 (KDM1A/ LSD1) impairs colorectal cancer tumorigenesis by affecting cancer cells stemness, motility, and differentiation. Cell Death Discov. 9: 201.

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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