

CIP2A (HL1925): sc-80662

BACKGROUND

Cancerous inhibitor of protein phosphatase 2A (CIP2A), also designated p90 autoantigen or KIAA1524, is a single-pass membrane protein that exhibits oncogenic activity. CIP2A is known to inhibit PP2A (protein phosphatase 2A) dephosphorylation of c-Myc, thereby stabilizing c-Myc (an oncogenic transcription factor) and promoting tumor formation and malignant cell growth. PP2A is a trimeric protein complex consisting of three subunits: a scaffold subunit, a catalytic subunit and a regulatory subunit. CIP2A specifically interacts with the catalytic subunit of PP2A to inhibit its activity. Inhibition of PP2A activity is a crucial step allowing for the progression of human cell transformation. Further supporting its role as an oncoprotein, CIP2A is known to be overexpressed in colon, gastric, and head and neck squamous cell carcinomas.

CHROMOSOMAL LOCATION

Genetic locus: KIAA1524 (human) mapping to 3q13.13.

SOURCE

CIP2A (HL1925) is a mouse monoclonal antibody raised against C-terminal CIP2A of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CIP2A (HL1925) is available conjugated to agarose (sc-80662 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-80662 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-80662 PE), fluorescein (sc-80662 FITC) or Alexa Fluor[®] 488 (sc-80662 AF488) or Alexa Fluor[®] 647 (sc-80662 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

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APPLICATIONS

CIP2A (HL1925) is recommended for detection of CIP2A of human origin by Western Blotting (starting dilution 1:200, 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for CIP2A siRNA (h): sc-77964, CIP2A shRNA Plasmid (h): sc-77964-SH and CIP2A shRNA (h) Lentiviral Particles: sc-77964-V.

Molecular Weight of CIP2A: 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SW480 cell lysate: sc-2219 or COLO 320DM cell lysate: sc-2226.

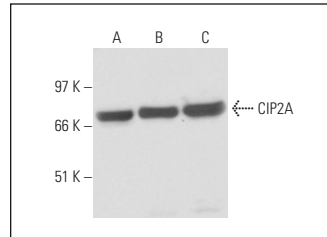
STORAGE

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

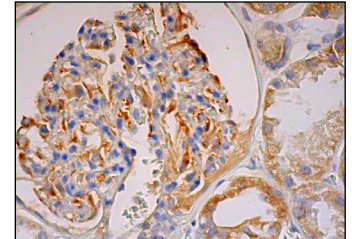
RESEARCH USE

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

DATA



CIP2A (HL1925): sc-80662. Western blot analysis of CIP2A expression in HeLa (A), SW480 (B) and COLO 320DM (C) whole cell lysates.



CIP2A (HL1925): sc-80662. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and membrane staining of cells in glomeruli and cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

- Huang, L.P., et al. 2010-2011. CIP2A expression is elevated in cervical cancer. *Cancer Biomark.* 8: 309-317.
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- Wei, L., et al. 2014. Knockdown of cancerous inhibitor of protein phosphatase 2A may sensitize NSCLC cells to cisplatin. *Cancer Gene Ther.* 21: 194-199.
- Balliu, M., et al. 2016. HDAC1 controls CIP2A transcription in human colorectal cancer cells. *Oncotarget* 7: 25862-25871.
- Liu, X., et al. 2017. Cucurbitacin B induces autophagy and apoptosis by suppressing CIP2A/PP2A/mTORC1 signaling axis in human cisplatin resistant gastric cancer cells. *Oncol. Rep.* 38: 271-278.
- Qin, S., et al. 2018. Cucurbitacin B induces inhibitory effects via CIP2A/PP2A/Akt pathway in glioblastoma multiforme. *Mol. Carcinog.* 57: 687-699.
- Gao, F., et al. 2018. CIP2A depletion potentiates the chemosensitivity of cisplatin by inducing increased apoptosis in bladder cancer cells. *Oncol. Rep.* 40: 2445-2454.
- Ji, J., et al. 2018. Increase in CIP2A expression is associated with cisplatin chemoresistance in gastric cancer. *Cancer Biomark.* 21: 307-316.
- Ma, W., et al. 2019. Cucurbitacin B induces inhibitory effects via the CIP2A/PP2A/C-KIT signaling axis in t(8;21) acute myeloid leukemia. *J. Pharmacol. Sci.* 139: 304-310.
- Tohmé, R., et al. 2019. Direct activation of PP2A for the treatment of tyrosine kinase inhibitor-resistant lung adenocarcinoma. *JCI Insight* 4: e125693.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.