

# CIP2A (4A9-1A2): sc-80660

## 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; C330027C09Rik (mouse) mapping to 16 B5.

## SOURCE

CIP2A (4A9-1A2) is a mouse monoclonal antibody raised against C-terminal CIP2A of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CIP2A (4A9-1A2) is available conjugated to agarose (sc-80660 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-80660 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-80660 PE), fluorescein (sc-80660 FITC), Alexa Fluor® 488 (sc-80660 AF488), Alexa Fluor® 546 (sc-80660 AF546), Alexa Fluor® 594 (sc-80660 AF594) or Alexa Fluor® 647 (sc-80660 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-80660 AF680) or Alexa Fluor® 790 (sc-80660 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CIP2A (4A9-1A2) is recommended for detection of CIP2A of human origin, C330027C09Rik of mouse origin and the corresponding rat homolog 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, C330027C09Rik siRNA (m): sc-141907, CIP2A shRNA Plasmid (h): sc-77964-SH, C330027C09Rik shRNA Plasmid (m): sc-141907-SH, CIP2A shRNA (h) Lentiviral Particles: sc-77964-V and C330027C09Rik shRNA (m) Lentiviral Particles: sc-141907-V.

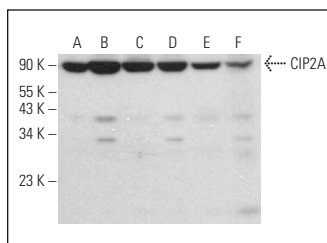
Molecular Weight of CIP2A: 90 kDa.

Positive Controls: AN3 CA cell lysate: sc-24662, MDA-MB-231 cell lysate: sc-2232 or SW480 cell lysate: sc-2219.

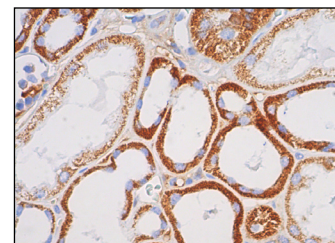
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CIP2A (4A9-1A2): sc-80660. Western blot analysis of CIP2A expression in SW480 (A), AN3 CA (B), MDA-MB-231 (C), A549 (D), M1 (E) and HEL 92.1.7 (F) whole cell lysates.



CIP2A (4A9-1A2): sc-80660. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing 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.
- Huang, L.P., et al. 2012. CIP2A protein expression in high-grade, high-stage bladder cancer. *Cancer Med.* 1: 76-81.
- Gershon, T.R., et al. 2013. Hexokinase-2-mediated aerobic glycolysis is integral to cerebellar neurogenesis and pathogenesis of medulloblastoma. *Cancer Metab.* 1: 2.
- Wu, Y., et al. 2015. CIP2A cooperates with H-Ras to promote epithelial-mesenchymal transition in cervical-cancer progression. *Cancer Lett.* 356: 646-655.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.