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.

REFERENCES

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, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
CIP2A (4A9-1A2) is recommended for detection of CIP2A of mouse, rat and 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)] and immunofluorescence (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: HeLa whole cell lysate: sc-2200, COLO 320DM cell lysate: sc-2226 or SW480 cell lysate: sc-2219.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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-IgG HRP-FITC: sc-516140 or m-IgG HRP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA
CIP2A (4A9-1A2): sc-80660. Western blot analysis of CIP2A expression in HeLa (A), LS1034 (B), SW480 (C) and COLO 320DM (D) whole cell lysates.

SELECT PRODUCT CITATIONS

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 for detailed protocols and support products.

See CIP2A (HL1925): sc-80662 for CIP2A antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.