

DPPA2 (H-10): sc-518274

BACKGROUND

DPPA2 (developmental pluripotency associated 2), also known as PESCRG1 (pluripotent embryonic stem cell-related gene 1 protein), is a 298 amino acid protein that localizes to the nucleus and contains one SAP domain. Expressed in embryonic stem cells, DPPA2 is thought to play a role in the maintenance of cell pluripotentiality and is associated with abnormal cell growth and cancer formation. The gene encoding DPPA2 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan Syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth Disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

1. Bortvin, A., et al. 2003. Incomplete reactivation of Oct4-related genes in mouse embryos cloned from somatic nuclei. *Development* 130: 1673-1680.
2. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
3. Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. *Genomics* 83: 193-202.
4. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. *Genomics* 85: 36-47.
5. Darai, E., et al. 2005. Evolutionarily plastic regions at human 3p21.3 coincide with tumor breakpoints identified by the "elimination test." *Genomics* 86: 1-12.

CHROMOSOMAL LOCATION

Genetic locus: DPPA2 (human) mapping to 3q13.13.

SOURCE

DPPA2 (H-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 125-151 of DPPA2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DPPA2 (H-10) is available conjugated to agarose (sc-518274 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518274 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518274 PE), fluorescein (sc-518274 FITC), Alexa Fluor® 488 (sc-518274 AF488), Alexa Fluor® 546 (sc-518274 AF546), Alexa Fluor® 594 (sc-518274 AF594) or Alexa Fluor® 647 (sc-518274 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518274 AF680) or Alexa Fluor® 790 (sc-518274 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

DPPA2 (H-10) is recommended for detection of DPPA2 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DPPA2 siRNA (h): sc-77176, DPPA2 shRNA Plasmid (h): sc-77176-SH and DPPA2 shRNA (h) Lentiviral Particles: sc-77176-V.

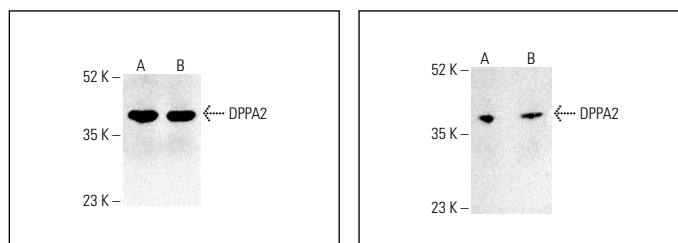
Molecular Weight of DPPA2: 34 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or SK-BR-3 cell lysate: sc-2218.

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.

DATA



DPPA2 (H-10): sc-518274. Western blot analysis of DPPA2 expression in MCF7 (A) and SK-BR-3 (B) whole cell lysates. Detection reagent used: m-IgG₃ BP-HRP: sc-533670.

DPPA2 (H-10): sc-518274. Western blot analysis of DPPA2 expression in MCF7 (A) and SK-BR-3 (B) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.