

CYP2C18 (A-8): sc-518231

BACKGROUND

Chromosome 10 contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging. Tetrahydrobiopterin deficiency and a number of syndromes involving defective skull and facial bone fusion are also linked to chromosome 10. As with most trisomies, trisomy 10 is rare and is deleterious.

REFERENCES

1. Fryns, J.P., et al. 1991. Apparent late-onset Cockayne syndrome and interstitial deletion of the long arm of chromosome 10 (del(10)(q11.23q21.2)). *Am. J. Med. Genet.* 40: 343-344.
2. Thöny, B., et al. 1994. Chromosomal location of two human genes encoding tetrahydrobiopterin-metabolizing enzymes: 6-pyruvoyl-tetrahydropterin synthase maps to 11q22.3-q23.3, and pterin-4 α -carbinolamine dehydratase maps to 10q22. *Genomics* 19: 365-368.
3. Horibata, K., et al. 2004. Complete absence of Cockayne syndrome group B gene product gives rise to UV-sensitive syndrome but not Cockayne syndrome. *Proc. Natl. Acad. Sci. USA* 101: 15410-15415.
4. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
5. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. *Am. J. Surg. Pathol.* 32: 1258-1264.
6. Blumenthal, G.M. and Dennis, P.A. 2008. PTEN hamartoma tumor syndromes. *Eur. J. Hum. Genet.* 16: 1289-1300.

CHROMOSOMAL LOCATION

Genetic locus: CYP2C18 (human) mapping to 10q23.33.

SOURCE

CYP2C18 (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 466-485 of CYP2C18 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CYP2C18 (A-8) is available conjugated to agarose (sc-518231 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518231 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518231 PE), fluorescein (sc-518231 FITC), Alexa Fluor® 488 (sc-518231 AF488), Alexa Fluor® 546 (sc-518231 AF546), Alexa Fluor® 594 (sc-518231 AF594) or Alexa Fluor® 647 (sc-518231 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518231 AF680) or Alexa Fluor® 790 (sc-518231 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CYP2C18 (A-8) is recommended for detection of CYP2C18 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

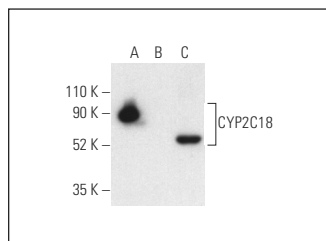
Suitable for use as control antibody for CYP2C18 siRNA (h): sc-105254, CYP2C18 shRNA Plasmid (h): sc-105254-SH and CYP2C18 shRNA (h) Lentiviral Particles: sc-105254-V.

Positive Controls: CYP2C18 (h): 293T Lysate: sc-370659.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



CYP2C18 (A-8): sc-518231. Western blot analysis of CYP2C18 expression in human recombinant CYP2C18 fusion protein (A), non-transfected: sc-117752 (B) and human CYP2C18 transfected: sc-370659 (C) 293T whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.

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.

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