

CYB5R2 (Q-12): sc-161509

BACKGROUND

NADH-cytochrome b5 reductases participate in a variety of physiological processes including biosynthesis of cholesterol, methemoglobin reduction of erythrocytes, elongation of fatty acids and metabolism of drugs. CYB5R2 (cytochrome b5 reductase 2), also known as B5R.2, is a 276 amino acid protein that contains one FAD-binding FR-type domain and belongs to the flavo-protein pyridine nucleotide cytochrome reductase family. Existing as two alternatively spliced isoforms, CYB5R2 reduces 2-[4-iodophenyl]-3-[4-nitrophenyl]-5-[2,4-disulphophenyl]-2H tetrazolium monosodium salt and lucigenin in spermatozoa, which results in NADH-dependent lucigenin chemiluminescence. CYB5R2 binds FAD as a cofactor and is encoded by a gene located on human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CYB5R2 (human) mapping to 11p15.4; Cyb5r2 (mouse) mapping to 7 E3.

SOURCE

CYB5R2 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CYB5R2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161509 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CYB5R2 (Q-12) is recommended for detection of CYB5R2 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)], 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); non cross-reactive with CYB5R1.

CYB5R2 (Q-12) is also recommended for detection of CYB5R2 in additional species, including equine.

Suitable for use as control antibody for CYB5R2 siRNA (h): sc-96980, CYB5R2 siRNA (m): sc-142653, CYB5R2 shRNA Plasmid (h): sc-96980-SH, CYB5R2 shRNA Plasmid (m): sc-142653-SH, CYB5R2 shRNA (h) Lentiviral Particles: sc-96980-V and CYB5R2 shRNA (m) Lentiviral Particles: sc-142653-V.

Molecular Weight of CYB5R2: 30 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.