

# NCB5OR (L-15): sc-68683

## BACKGROUND

NCB5OR, also referred to as CYB5R4 (cytochrome b5 reductase 4), is a flavohemoprotein that contains cytochrome b5 and chrome b5 reductase cytochromes. A member of the flavoprotein pyridine nucleotide cytochrome reductase family, NCB5OR is widely expressed and colocalizes with calreticulin to the endoplasmic reticulum (ER). NCB5OR has a cytochrome b5 heme-binding domain as well as one CS domain, two FAD and two iron binding motifs. NCB5OR reduces cytochrome c, methemoglobin, ferricyanide and molecular oxygen *in vitro*. NCB5OR is involved in the ER stress response pathway and plays a critical role in protecting pancreatic  $\beta$ -cells against oxidative stress by preventing excess buildup of reactive oxygen species (ROS). The absence of NCB5OR may cause Insulin-deficient diabetes.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CYB5R4 (human) mapping to 6q14.2; Cyb5r4 (mouse) mapping to 9 E3.1.

## SOURCE

NCB5OR (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NCB5OR of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68683 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NCB5OR (L-15) is recommended for detection of NCB5OR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NCB5OR (L-15) is also recommended for detection of NCB5OR in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for NCB5OR siRNA (h): sc-75883, NCB5OR siRNA (m): sc-63269, NCB5OR shRNA Plasmid (h): sc-75883-SH, NCB5OR shRNA Plasmid (m): sc-63269-SH, NCB5OR shRNA (h) Lentiviral Particles: sc-75883-V and NCB5OR shRNA (m) Lentiviral Particles: sc-63269-V.

Molecular Weight of NCB5OR: 59 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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) 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.



Try **NCB5OR (D-2): sc-390569** or **NCB5OR (D-4): sc-390570**, our highly recommended monoclonal alternatives to NCB5OR (L-15).