

# CDS2 (P-14): sc-85474

## BACKGROUND

CDS2 (CDP-diglyceride synthetase 2), also known as Phosphatidate cytidyltransferase 2, is a 445 amino acid enzyme that is localized to the mitochondrial inner membrane. As a multipass-transmembrane protein, CDS2 catalyzes the formation of CDP-diacylglycerol from phosphatidic acid, which is an important step toward the synthesis of phosphatidylglycerol, phosphatidylinositol and cardiolipin. This is a key regulatory event that determines the amount of phosphatidylinositol 4,5-bisphosphate (PIP<sub>2</sub>) that is available for signaling. Due to its expression pattern and its role in the phosphoinositide-mediated signaling pathway, the gene encoding CDS2 may be a candidate gene for corneal hereditary endothelial dystrophy 2, a disease characterized by bilateral opacity of the cornea. There are two isoforms of CDS2 which are produced as a result of alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CDS2 (human) mapping to 20p12.3; Cds2 (mouse) mapping to 2 F2.

## SOURCE

CDS2 (P-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CDS2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85474 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CDS2 (P-14) is recommended for detection of CDS2 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); non cross-reactive with isoform CDS2-2.

CDS2 (P-14) is also recommended for detection of CDS2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CDS2 siRNA (h): sc-72851, CDS2 siRNA (m): sc-142239, CDS2 shRNA Plasmid (h): sc-72851-SH, CDS2 shRNA Plasmid (m): sc-142239-SH, CDS2 shRNA (h) Lentiviral Particles: sc-72851-V and CDS2 shRNA (m) Lentiviral Particles: sc-142239-V.

Molecular Weight of CDS2: 51 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.