BACKGROUND

DES2 (sphingolipid δ(4)-desaturase/C4-hydroxylase DES2), also known as DESG2, C14orf66 or degenerative spermatocyte homolog 2, is a 323 amino acid protein belonging to the fatty acid desaturase family and the DESG sub-family. DES2, a bifunctional enzyme which acts as both a sphingolipid δ(4)-desaturase and a sphingolipid C4-hydroxylase, is involved in membrane lipid metabolism and sphingolipid biosynthesis. DES2 is up-regulated during keratinocyte differentiation. Not expressed at day 0 or day 3 after differentiation, DES2 is detectable by day 6 and has increased expression by day 9. Localized to the endoplasmic reticulum membrane, DES2 is highly expressed in skin, intestine and kidney.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: DES2 (human) mapping to 14q32.2.

SOURCE

DES2 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DES2 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-240312 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

DES2 (G-15) is recommended for detection of DES2 of 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 FADS7.

DES2 (G-15) is also recommended for detection of DES2 in additional species, including equine and canine.

Suitable for use as control antibody for DES2 siRNA (h): sc-92300, DES2 shRNA Plasmid (h): sc-92300-SH and DES2 shRNA (h) Lentiviral Particles: sc-92300-V.

Molecular Weight of DES2: 37 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-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-FITC: sc-2024B (dilution range: 1:100-1:400) and Western Blotting Luminol Reagent: sc-2048. 3) Immunofluorescence: use donkey anti-goat IgG-HRP: sc-2020 (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.

DATA

DES2 (G-15): sc-240312. Western blot analysis of DES2 expression in human kidney tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.