

melanopsin (D-18): sc-26959

BACKGROUND

G protein-coupled receptors (GPCRs) contain seven transmembrane helices and elicit G protein-mediated signaling cascades. The opsin family represents approximately 90 percent of all GPCRs and includes red, green, and blue-sensitive opsins, rhodopsin and melanopsin. Opsins consist of an apoprotein covalently linked to 11-*cis*-retinal that undergoes isomerization upon photon absorption. The photon-induced conformation change of opsin activates hundreds of G proteins. Mammalian melanopsin expression selectively occurs in the inner retina and not in the photoreceptor cells critical for vision. Melanopsin plays a nonessential role in the transduction of photic stimuli for light/dark entrainment.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: *Oprn4* (mouse) mapping to 14 B.

SOURCE

melanopsin (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of melanopsin of mouse 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-26959 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

melanopsin (D-18) is recommended for detection of melanopsin of mouse and, to a lesser extent, rat 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

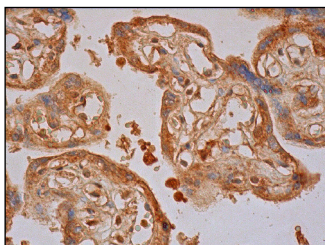
Suitable for use as control antibody for melanopsin siRNA (m): sc-40147, melanopsin shRNA Plasmid (m): sc-40147-SH and melanopsin shRNA (m) Lentiviral Particles: sc-40147-V.

Molecular Weight of melanopsin: 65 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



melanopsin (D-18): sc-26959. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells.

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.