

QDPR (H-234): sc-98349

BACKGROUND

QDPR (quinoid dihydropteridine reductase), also known as DHPR (dihydropteridine reductase) or PKU2, is a member of the short-chain dehydrogenases/reductase (SDR) family of enzymes. Functioning as a homodimer, QDPR plays an important role in the recycling of tetrahydrobiopterin (BH₄), an essential cofactor for the hydroxylation of the aromatic amino acids (tryptophan, tyrosine and phenylalanine). More specifically, QDPR catalyzes the regeneration of BH₄ from quinonoid dihydrobiopterin (qBH₂), the product generated from the hydroxylation reactions. Mutations in the gene encoding QDPR can lead to phenylketonuria II (also called PK2 or dihydropteridine reductase deficiency), a disorder resulting from the depletion of dopamine, epinephrine and serotonin due to defective recycling of BH₄. Symptoms of PK2 include hyperphenylalaninemia, axial hypotonia, truncal hypertonia, microcephaly and abnormal thermogenesis.

CHROMOSOMAL LOCATION

Genetic locus: QDPR (human) mapping to 4p15.32; Qdpr (mouse) mapping to 5 B3.

SOURCE

QDPR (H-234) is a rabbit polyclonal antibody raised against amino acids 11-244 mapping at the C-terminus of QDPR 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.

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.

APPLICATIONS

QDPR (H-234) is recommended for detection of QDPR 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).

QDPR (H-234) is also recommended for detection of QDPR in additional species, including canine and porcine.

Suitable for use as control antibody for QDPR siRNA (h): sc-89106, QDPR siRNA (m): sc-106467, QDPR shRNA Plasmid (h): sc-89106-SH, QDPR shRNA Plasmid (m): sc-106467-SH, QDPR shRNA (h) Lentiviral Particles: sc-89106-V and QDPR shRNA (m) Lentiviral Particles: sc-106467-V.

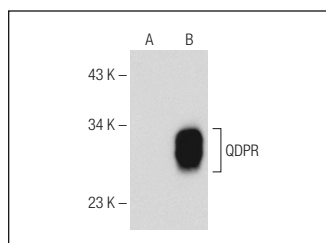
Molecular Weight of QDPR: 26 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, QDPR (m): 293T lysate: sc-122863 or K-562 whole cell lysate: sc-2203.

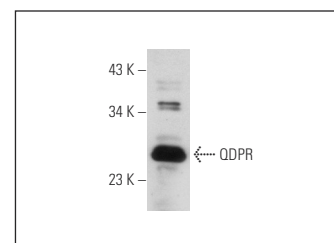
RECOMMENDED SECONDARY REAGENTS

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 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™ Mounting Medium: sc-24941.

DATA



QDPR (H-234): sc-98349. Western blot analysis of QDPR expression in non-transfected: sc-117752 (A) and mouse QDPR transfected: sc-122863 (B) 293T whole cell lysates.



QDPR (H-234): sc-98349. Western blot analysis of QDPR expression in HL-60 whole cell lysate.

PROTOCOLS

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



Try **QDPR (B-1): sc-376218**, our highly recommended monoclonal alternative to QDPR (H-234).