SANTA CRUZ BIOTECHNOLOGY, INC.

QAPRTase (H-140): sc-50478

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Quinolinate phosphoribosyltransferase (QPRTase) is a major enzyme in the catabolism of quinolinate. Quinolinate is an intermediate in the tryptophan-nicotinamide adenine dinucleotide (NAD) pathway, leading to the production of nicotinic acid, carbon dioxide and pyrophosphate. Catabolism of quinolinate is vital due to the neurotoxicity of quinolinate. Increased levels of quinolinate have been linked to neurodegenerative symptoms associated with meningitis and AIDS. QAPRTase has a seven-stranded α/β barrel domain, which is similar in structure to the eight-stranded α/β barrel enzymes. The protein possesses a novel fold in comparison to other members of the PRTase family. This fold comprises a structure combining two domains. The structure is part α/β barrel-like domain, and part α/β N-terminal domain.

REFERENCES

1. Eads, J.C., et al. 1997. A new function for a common fold: the crystal structure of quinolinic acid phosphoribosyltransferase. Structure 5: 47-58.
2. Cao, H., et al. 2002. Quinolinate phosphoribosyltransferase: kinetic mechanism for a type II PRTase. Biochemistry 41: 3520-3528.

CHROMOSOMAL LOCATION

Genetic locus: QPRT (human) mapping to 16p11.2; Qprt (mouse) mapping to 7 F3.

SOURCE

QAPRTase (H-140) is a rabbit polyclonal antibody raised against amino acids 1-140 mapping at the N-terminus of QAPRTase 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.

APPLICATIONS

QAPRTase (H-140) is recommended for detection of QAPRTase 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).

QAPRTase (H-140) is also recommended for detection of QAPRTase in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for QAPRTase siRNA (h): sc-62914, QAPRTase siRNA (m): sc-62915, QAPRTase shRNA Plasmid (h): sc-62914-SH, QAPRTase shRNA Plasmid (m): sc-62915-SH, QAPRTase shRNA (h) Lentiviral Particles: sc-62914-V and QAPRTase shRNA (m) Lentiviral Particles: sc-62915-V.

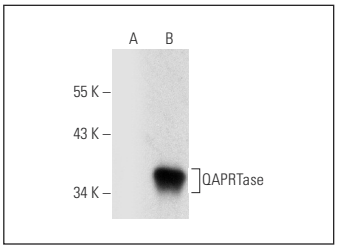
Molecular Weight of QAPRTase: 30 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or QAPRTase (m): 293T Lysate: sc-127421.

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



QAPRTase (H-140): sc-50478. Western blot analysis of QAPRTase expression in non-transfected: sc-117752 (**A**) and mouse QAPRTase transfected: sc-127421 (**B**) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.