SANTA CRUZ BIOTECHNOLOGY, INC.

PPOX (H-180): sc-67040

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Protoporphyrinogen oxidase, the penultimate enzyme in the heme biosynthetic pathway, catalyzes the six-electron oxidation of protoporphyrinogen IX to form protoporphyrin IX. The PPOX protein localizes to the inner membrane of mitochondria from various tissues, including heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Genetic deficiency of PPOX results in variegate porphyria, a low penetrance, autosomal dominant disorder characterized by cutaneous photosensitivity and/or various neurological manifestations. The rare homozygous variant of VP is characterized by severe PPOX deficiency and results in the onset of photosensitization by porphyrins in early childhood, skeletal abnormalities of the hand and, less constantly, short stature, mental retardation and convulsions.

REFERENCES

1. Taketani, S., et al. 1995. The human protoporphyrinogen oxidase gene (PPOX): organization and location to chromosome 1. Genomics 29: 698-703.
2. Nishimura, K., et al. 1995. Cloning of a human cDNA for protoporphyrinogen oxidase by complementation *in vivo* of a hemG mutant of *Escherichia coli*. J. Biol. Chem. 270: 8076-8080.

CHROMOSOMAL LOCATION

Genetic locus: PPOX (human) mapping to 1q23.3; Ppox (mouse) mapping to 1 H3.

SOURCE

PPOX (H-180) is a rabbit polyclonal antibody raised against amino acids 298-477 mapping at the C-terminus of PPOX 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

PPOX (H-180) is recommended for detection of PPOX 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).

PPOX (H-180) is also recommended for detection of PPOX in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PPOX siRNA (h): sc-44783, PPOX siRNA (m): sc-44784, PPOX shRNA Plasmid (h): sc-44783-SH, PPOX shRNA Plasmid (m): sc-44784-SH, PPOX shRNA (h) Lentiviral Particles: sc-44783-V and PPOX shRNA (m) Lentiviral Particles: sc-44784-V.

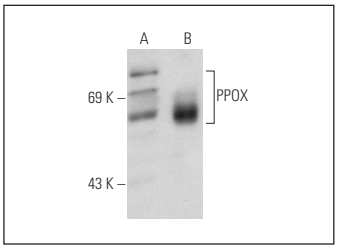
Molecular Weight of PPOX: 51 kDa.

Positive Controls: PPOX (m): 293T Lysate: sc-122735, Hep G2 cell lysate: sc-2227 or A549 cell lysate: sc-2413.

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



PPOX (H-180): sc-67040. Western blot analysis of PPOX expression in non-transfected: sc-117752 (**A**) and mouse PPOX transfected: sc-122735 (**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.