

CPOX (K-13): sc-99858

BACKGROUND

CPOX (coproporphyrinogen III oxidase) is a 454 amino acid mitochondrial enzyme that is localized to the inner membrane space of erythrocytes. It participates in the sixth step of heme biosynthesis by catalyzing the formation of protoporphyrinogen IX from coproporphyrinogen III. Mutations in the gene encoding CPOX are the cause of coproporphyrinemia, an autosomal dominant disease characterized by skin photosensitivity and neurological disturbances. Symptoms are often experienced as attacks, which include severe abdominal and nerve pain. People affected by coproporphyrinemia overexcrete coproporphyrinogen III in feces and urine and the enzymatic activity of CPOX is found to be approximately half that of normal, leading to a decrease in overall heme synthesis. There is no cure for coproporphyrinemia, but preventative treatment to relieve symptoms usually involves dietary changes and avoidance of drugs and alcohol.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CPOX (human) mapping to 3q11.2; Cpx (mouse) mapping to 16 C1.2.

RESEARCH USE

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

SOURCE

CPOX (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CPOX 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-99858 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CPOX (K-13) is recommended for detection of CPOX of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CPOX (K-13) is also recommended for detection of CPOX in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CPOX siRNA (h): sc-77907, CPOX siRNA (m): sc-142545, CPOX shRNA Plasmid (h): sc-77907-SH, CPOX shRNA Plasmid (m): sc-142545-SH, CPOX shRNA (h) Lentiviral Particles: sc-77907-V and CPOX shRNA (m) Lentiviral Particles: sc-142545-V.

Molecular Weight of CPOX: 36 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.

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.



Try **CPOX (B-9): sc-393388**, our highly recommended monoclonal alternative to CPOX (K-13).