BACKGROUND

Uroporphyrinogen decarboxylase, also known as UROD or UPD, is a 367 amino acid protein that exists as a homodimer. UROD is the fifth enzyme in the human heme biosynthetic pathway and is responsible for the conversion of uroporphyrinogen to coproporphyrinogen through the removal of four carboxymethyl side chains. Mutations in the UROD gene are responsible for three autosomal disorders in humans: familial porphyria cutanea tarda (F-PCT), sporadic porphyria cutanea tarda (S-PCT) and hepatoerythropoietic porphyria (HEP). F-PCT is an autosomal dominant disorder characterized by late-onset light-sensitive dermatitis. High levels of uroporphyrin excretion in the urine and varying degrees of liver damage are associated with this disease. S-PCT is an idiosyncratic form of PCT that is characterized by a reduction of liver enzymes. HEP is an autosomal recessive disorder that affects infants. It is characterized by excessive excretion of acetate-substituted porphyrins and accumulation of protoporphyrin in erythrocytes.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: UROD (human) mapping to 1p34.1; Urod (mouse) mapping to 4 D1.

SOURCE

UROD (G-7) is a mouse monoclonal antibody raised against amino acids 81-133 mapping within an internal region of UROD of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

UROD (G-7) is recommended for detection of UROD of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for UROD siRNA (h): sc-88548, UROD siRNA (m): sc-154937, UROD shRNA Plasmid (h): sc-88548-SH, UROD shRNA Plasmid (m): sc-154937-SH, UROD shRNA (h) Lentiviral Particles: sc-88548-V and UROD shRNA (m) Lentiviral Particles: sc-154937-V.

Molecular Weight of UROD: 41 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, M1 whole cell lysate: sc-364782 or U-87 MG cell lysate: sc-2411.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

DATA

UROD (G-7): sc-374318. Western blot analysis of UROD expression in Hep G2 (A), U-87 MG (B), NIH/3T3 (C), M1 (D) and L6 (E) whole cell lysates.

UR O D (G-7): sc-374318. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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 for detailed protocols and support products.