

# UROS (N-20): sc-49570

## BACKGROUND

Uroporphyrinogen-III synthase (UROS), also designated hydroxymethylbilane hydrolyase, is a 265-amino acid ubiquitously expressed protein that is predominantly found in skeletal muscle, heart muscle, the caudate nucleus, and the amygdala. UROS is the fourth enzyme in the human heme biosynthetic pathway and is responsible for the conversion of hydroxymethylbilane to the cyclic tetrapyrrole, uroporphyrinogen III. UROS is a monomer involved in porphyrin biosynthesis by the Shemin pathway. Defects in the UROS gene can cause molecular lesions that lead to the autosomal recessive Gunther disease, also known as congenital erythropoietic porphyria (CEP). CEP is characterized by accumulation of uroporphyrin I in the bone marrow, peripheral blood, and other organs, often causing death early in adult life.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: UROS (human) mapping to 10q26.13.

## RESEARCH USE

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

## SOURCE

UROS (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of UROS 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-49570 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

UROS (N-20) is recommended for detection of Uroporphyrinogen-III synthase (UROS) of 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).

UROS (N-20) is also recommended for detection of Uroporphyrinogen-III synthase (UROS) in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for UROS siRNA (h): sc-61760, UROS shRNA Plasmid (h): sc-61760-SH and UROS shRNA (h) Lentiviral Particles: sc-61760-V.

Molecular Weight of UROS: 30 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, mouse liver extract: sc-2256 or mouse thyroid extract: sc-2407.

## 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.



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Try **UROS (G-9): sc-365120**, our highly recommended monoclonal alternative to UROS (N-20).