

# hepatic OAT (N-13): sc-55836

## BACKGROUND

OAT (ornithine aminotransferase (mitochondrial), ornithine-oxo-acid aminotransferase) is a 439 amino acid protein encoded by the human gene OAT. OAT belongs to the class III pyridoxal-phosphate-dependent aminotransferase family and is usually found as a homotetramer in the mitochondrion matrix. OAT catalyzes the major catalytic reaction for ornithine. Ornithinemia, presumably due to deficiency of ornithine ketoacid aminotransferase (OAT), has been found in patients with gyrate atrophy of the choroid and retina. The clinical history of gyrate atrophy is usually night blindness that begins in late childhood, accompanied by sharply demarcated circular areas of chorioretinal atrophy. During the second and third decades the areas of atrophy enlarge. The hepatic cleavage product, hepatic OAT, is formed by cleaving a 25 amino acid transit peptide from the N-terminus of the OAT precursor. The renal form is produced by cleaving a 35 amino acid transit peptide from the N-terminus.

## CHROMOSOMAL LOCATION

Genetic locus: OAT (human) mapping to 10q26.13; Oat (mouse) mapping to 7 F3.

## SOURCE

hepatic OAT (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of OAT 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-55836 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

hepatic OAT (N-13) is recommended for detection of hepatic OAT 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

hepatic OAT (N-13) is also recommended for detection of hepatic OAT in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for OAT siRNA (h): sc-62709, OAT siRNA (m): sc-62710, OAT shRNA Plasmid (h): sc-62709-SH, OAT shRNA Plasmid (m): sc-62710-SH, OAT shRNA (h) Lentiviral Particles: sc-62709-V and OAT shRNA (m) Lentiviral Particles: sc-62710-V.

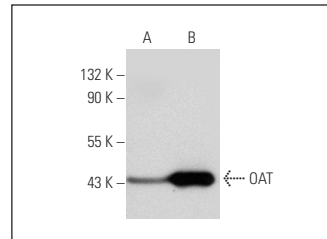
Molecular Weight of hepatic OAT: 49 kDa.

Positive Controls: OAT (h): 293 Lysate: sc-110806, rat kidney extract: sc-2394 or OAT (m): 293T Lysate: sc-127253.

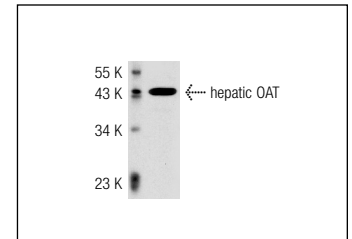
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

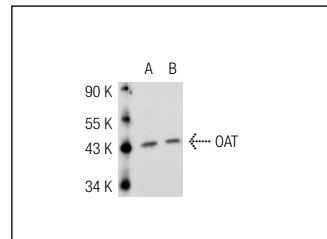
## DATA



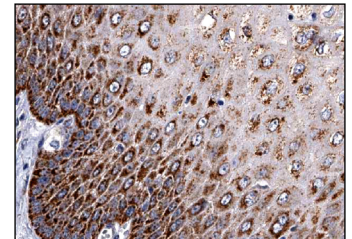
hepatic OAT (N-13): sc-55836. Western blot analysis of OAT expression in non-transfected: sc-110760 (A) and human OAT transfected: sc-110806 (B) 293 whole cell lysates.



hepatic OAT (N-13): sc-55836. Western blot analysis of hepatic OAT expression in rat kidney tissue extract.



hepatic OAT (N-13): sc-55836. Western blot analysis of OAT expression in non-transfected: sc-117752 (A) and mouse OAT transfected: sc-127253 (B) 293T whole cell lysates.



hepatic OAT (N-13): sc-55836. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells at high magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **OAT (A-12): sc-374243** or **hepatic OAT (D-10): sc-376050**, our highly recommended monoclonal alternatives to hepatic OAT (N-13).