

# Human OAT antibody

Catalog Number: ATGA0176

## PRODUCT INFORMATION

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**Catalog number**

ATGA0176

**Clone No.**

AT23A2

**Product type**

Monoclonal antibody

**UnitProt No.**

P04181

**NCBI Accession No.**

NP\_000265

**Alternative Names**

ornithine aminotransferase precursor, DKFZp781A11155, HOGA, OATASE, ornithine aminotransferase precursor EC 2.6.1.13, ornithine aminotransferase (gyrate atrophy), ornithine aminotransferase precursor, Ornithine aminotransferase, mitochondrial precursor, Ornithine oxo-acid aminotransferase, Ornithine--oxo-acid aminotransferase

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human OAT (33-439aa) purified from E.coli

**Isotype**

IgG1 kappa

**Purification Note**

By protein-G affinity chromatography

**Application**

ELISA, WB, ICC/IF

**Usage**

The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

OAT is a 49-kDa nucleus-encoded protein imported into mitochondria to give the mature 48-kDa OAT polypeptide. It has been described in humans, animals, insects, plants and microorganisms. Especially OAT have sex-differential expression in the mouse kidney. OAT plays crucial physiological roles in amino acid metabolism. OAT shows a large structural and mechanistic similarity to other enzymes from the subgroup III of aminotransferases, which transfer an amino group from a carbon atom that does not carry a carboxyl function. OAT is essential for nitrogen recycling from arginine but not for the stress-induced proline accumulation.

### General References

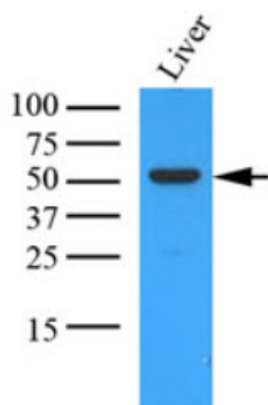
Stranska J, et al. (2008) *Plant Signal Behav*, 3(11):929-35.

Canas RA, et al. (2008) *Plant Physiol*, 148(1):77-88.

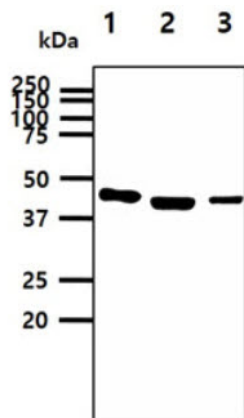
Levillain O, et al. (2007) *Am J Physiol Renal Physiol*, 292(3):F1016-27.

## DATA

### Western blot analysis (WB)



Tissue lysate of mouse liver (35ug) was resolved by SDS-PAGE, transferred to NC membrane and probed with anti-human OAT (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.



The recombinant protein (20ng) and lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human OAT antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: OAT recombinant protein

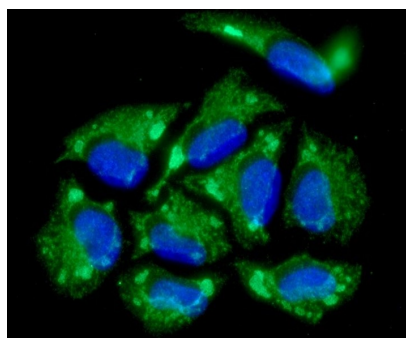
Lane 2.: 293T cell lysate

Lane 3.: Mouse brain tissue lysate

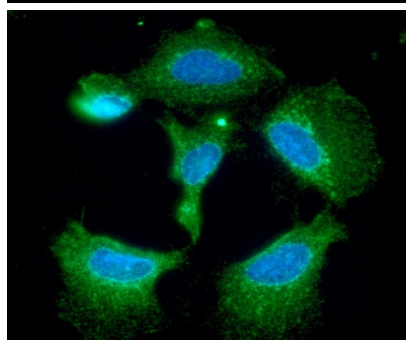
### Immunocytochemistry/Immunofluorescence (ICC/IF)

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ICC/IF analysis of OAT in HeLa cells. The cell was stained with ATGA0176 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



ICC/IF analysis of OAT in Hep3B cells. The cell was stained with ATGA0176 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).