

# Recombinant Human Ornithine Aminotransferase

**Cat. No.** OAT-493H    **Lot. No.** (See product label)

## SPECIFICATION

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>         | Recombinant human OAT protein was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques. MW = 45.2 kDa (408aa).                                                                                                                                                                                                                                                                   |
| <b>Species</b>                  | Human                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>                   | E.coli                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Protein Length</b>           | 33-439 aa                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>              | OAT, also known as mitochondrial enzyme ornithine aminotransferase, is a key enzyme in the pathway that converts arginine and ornithine into the major excitatory and inhibitory neurotransmitters glutamate and GABA. ( L-ornithine + a 2-oxo acid = L-glutamate 5-semialdehyde + an L-amino acid.) Mutations that result in a deficiency of this enzyme cause the autosomal recessive eye disease Gyrate Atrophy. |
| <b>Form</b>                     | Liquid. 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol.                                                                                                                                                                                                                                                                                                                                                       |
| <b>Purity</b>                   | > 90% by SDS – PAGE.                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Concentration</b>            | 1 mg/ml (determined by Bradford assay).                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Sequences Of Amino Acids</b> | MTVQGPPTSD DIFEREYKYG AHNYHPLPVA LERGKGIYLW DVEGRKYFDF<br>LSSYS AVNQG HCHPKIVNAL KSQVDKLT LT SRAFYNNVLGEYEEYITKLF<br>NYHKVLPMNT GVEAGETACK LARKWGYTVK GIQKYKAKIV FAAGNFWGRT<br>LSAISSSTDP TSYDGF GPFM PGFDIIPYNDLPALERALQD PNVA AFMVEP                                                                                                                                                                              |

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 45-1 Ramsey Road, Shirley, NY 11967, USA

IQGEAGVVVP DPGYLMGVRE LCTRHQVLFI ADEIQTGLAR TGRWLAVDYE  
 NVRPDIVLLG KALSGGLYPVSAVLCDDDIM LTIKPGEHGS TYGGNPLGCR  
 VAIAALEVLE EENLAENADK LGIILRNELM KLPSDVVTAV RGKGLLNAIV  
 IKETKDWDAAWKVCLRLRDNG LLAKPTHGDI IRFAPPLVIK EDELRESIEI INKTILSF.

**Storage**

can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**GENE INFORMATION**
**Gene Name**

OAT ornithine aminotransferase [ Homo sapiens ]

**Synonyms**

ornithine aminotransferase; HOGA; OATASE; DKFZp781A11155; OAT; ornithine aminotransferase, mitochondrial; gyrate atrophy; ornithine-delta-aminotransferase; ornithine-oxo-acid aminotransferase; ornithine--oxo-acid aminotransferase; ornithine aminotransferase (gyrate atrophy); EC 2.6.1.13

**Gene ID**

4942

**mRNA Refseq**

NM\_000274

**Protein Refseq**

NP\_000265

**MIM**

258870

**UniProt ID**

P04181

**Chromosome Location**

10q26

**Pathway**

Arginine and proline metabolism; Metabolic pathways; Metabolism of amino acids and

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derivatives

**Function**

ornithine-oxo-acid transaminase activity; protein binding; pyridoxal phosphate binding; transferase activity

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