

## Recombinant Human DAO, GST-tagged

Cat. No. DAO-11821H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <b>Product Overview</b> | Recombinant Human DAO protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>    | 24-347a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | This gene encodes the peroxisomal enzyme D-amino acid oxidase. The enzyme is a flavoprotein which uses flavin adenine dinucleotide (FAD) as its prosthetic group. Its substrates include a wide variety of D-amino acids, but it is inactive on the naturally occurring L-amino acids. Its biological function is not known; it may act as a detoxifying agent which removes D-amino acids that accumulate during aging. In mice, it degrades D-serine, a co-agonist of the NMDA receptor. This gene may play a role in the pathophysiology of schizophrenia. |
| <b>Storage</b>          | The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Storage Buffer</b>   | 1M PBS (58mM Na <sub>2</sub> HPO <sub>4</sub> , 17mM NaH <sub>2</sub> PO <sub>4</sub> , 68mM NaCl, pH8. ) added with 100mM GSH and 1% Triton X-100, 15% glycerol.                                                                                                                                                                                                                                                                                                                                                                                             |

### GENE INFORMATION

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

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

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| <b>Gene Name</b>           | DAO D-amino-acid oxidase [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Official Symbol</b>     | DAO                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Synonyms</b>            | DAO; D-amino-acid oxidase; DAMOX; D-amino acid oxidase; DAAO; OXDA; MGC35381;                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Gene ID</b>             | 1610                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>mRNA Refseq</b>         | NM_001917                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Protein Refseq</b>      | NP_001908                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>MIM</b>                 | 124050                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>UniProt ID</b>          | P14920                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Chromosome Location</b> | 12                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Pathway</b>             | Arginine and proline metabolism, organism-specific biosystem; Arginine and proline metabolism, conserved biosystem; D-Arginine and D-ornithine metabolism, organism-specific biosystem; D-Arginine and D-ornithine metabolism, conserved biosystem; Glycine, serine and threonine metabolism, organism-specific biosystem; Glycine, serine and threonine metabolism, conserved biosystem; Glyoxylate metabolism, organism-specific biosystem; |
| <b>Function</b>            | D-amino-acid oxidase activity; D-amino-acid oxidase activity; FAD binding; nucleotide binding; oxidoreductase activity; protein binding; protein dimerization activity;                                                                                                                                                                                                                                                                       |