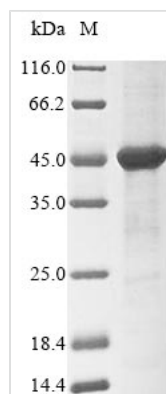




# Recombinant Rat D-amino-acid oxidase (Dao)

|                            |  |
|----------------------------|--|
| <b>Product Code</b>        | CSB-EP006494RA   |
| <b>Relevance</b>           | Regulates the level of the neuromodulator D-serine in the brain. Has high activity towards D-DOPA and contributes to dopamine synthesis. Could act as a detoxifying agent which removes D-amino acids accumulated during aging. Acts on a variety of D-amino acids with a preference for those having small hydrophobic side chains followed by those bearing polar, aromatic, and basic groups. Does not act on acidic amino acids. |
| <b>Storage</b>             | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.  |
| <b>Uniprot No.</b>         | O35078   |
| <b>Product Type</b>        | Recombinant Protein  |
| <b>Immunogen Species</b>   | Rattus norvegicus (Rat)  |
| <b>Purity</b>              | Greater than 85% as determined by SDS-PAGE.  |
| <b>Sequence</b>            | MRVAVIGAGVIGLSTALCIHERYHPAQPLHMKIYADRFTPFTTSDVAAGLWQPY<br>LSDPSNPQEAewnqqTFDHLQsclhspnaekmglalisgynlfrdevpdpfw<br>KSTVLGFRKLTPSELDMFPDYSYGFNTSLLEGKSYLSWTERLTERGVKFI<br>HRKVASFEEVVRGGVDVIINCTGVWAGALQADASLQPGRGQIIQVEAPWIKHFI<br>LTHDPSLGIYNsPYIIPGSKTVTLGGVFQLGNWSELNSVHDHNTIWKSCCQLEP<br>TLKNARIMGELTGFRPVRPQVRLERERLRFGSSSAEVIHNYGHGGYGLTIHWG<br>CAMEAANLFGKILEEKNLsrmpPSHL  |
| <b>Lead Time</b>           | 3-7 business days  |
| <b>Research Area</b>       | Metabolism   |
| <b>Source</b>              | E.coli   |
| <b>Gene Names</b>          | Dao  |
| <b>Protein Names</b>       | Dao1   |
| <b>Expression Region</b>   | 1-346aa  |
| <b>Notes</b>               | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.  |
| <b>Tag Info</b>            | N-terminal 10xHis-tagged and C-terminal Myc-tagged   |
| <b>Mol. Weight</b>         | 45.8 kDa   |
| <b>Protein Description</b> | Full Length  |
| <b>Image</b>               |  |



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

Our Recombinant Rat D-amino-acid oxidase (DAAO) is an essential component in the research arena of Metabolism. The protein, encoded by the 'Dao' gene in Rat species, is integral to the metabolism of D-amino acids, and is known for its catalytic role in oxidizing D-amino acids into their corresponding keto acids. This makes it a valuable tool for understanding metabolic pathways and interactions.

The protein is expressed from E.coli, capturing the full length of the protein from amino acid 1 to 346. In order to increase its versatility in various experimental protocols, the DAAO protein is tagged on the N-terminal with a 10xHis tag and on the C-terminal with a Myc tag, aiding in its purification and detection. Our product boasts a purity greater than 85%, as determined by SDS-PAGE, reinforcing its reliability. You can choose to have the Recombinant Rat DAAO protein in a liquid or lyophilized powder form, allowing for a flexible application in different experimental setups.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.