Recombinant Human DAO Protein (His Tag)

Catalog Number: PDEH101148

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

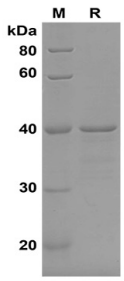
Description

Species	Human
Source	E.coli-derived Human DAO protein Met1-Leu347 with an N-terminal His
Calculated MW	38.06 kDa
Observed MW	40 kDa
Accession	P14920
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human DAO proteins, 2μg/lane of Recombinant Human DAO proteins, was resolved with SDS-PAGE under reducing conditions, showing bands at 40 KD

Background

D-Amino-Acid Oxidase (DAO) belongs to the DAMOX/DASOX family. DAO is a peroxisomal enzyme which founctions as a homodimer to oxidizes D-amino acids to the corresponding imino acids, producing ammonia and hydrogen peroxide. D-amino-acid oxidase regulates the level of the neuromodulator D-serine in the brain, has a high activity towards D-DOPA and contributes to dopamine synthesis. D-amino-acid oxidase could act as a detoxifying agent which removes D-amino acids accumulated during aging. It also 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.