



Synonym

Aromatic-L-amino-acid decarboxylase, Dopa decarboxilase, AADC

Source

Human DDC, His Tag (DDC-H55H6) is expressed from Baculovirus-Insect cells.

It contains AA Met 1 - Glu 480 (Accession # [P20711-1](#)).

Predicted N-terminus: Met 1

Molecular Characterization

DDC (Met 1 - Glu 480)
P20711-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 55.8 kDa. The protein migrates as 53-58 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Supplied as 0.2 µm filtered solution in 25 mM MES, 150 mM NaCl, pH 6.0 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

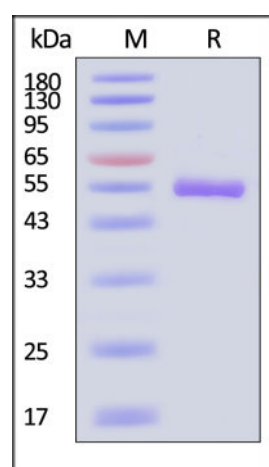
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE

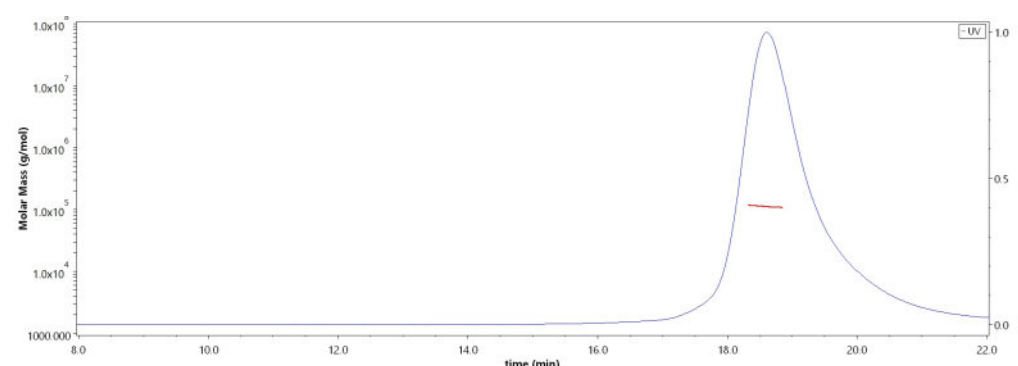


Human DDC, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity

Measured by its ability to convert the substrate 3, 4-dihydroxy L-phenylalanine (LDopa) to 3, 4-dihydroxyphenylethylamine (dopamine). The dopamine product is measured by its absorbance at 340 nm after derivatization with trinitrobenzene sulfonic acid. The specific activity is >1000 pmol/min/µg (QC tested).

SEC-MALS



The purity of Human DDC, His Tag (Cat. No. DDC-H55H6) is more than 90% and the molecular weight of this protein is around 100-125 kDa verified by SEC-MALS.

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Background

Dopa decarboxilase (DDC), also known as aromatic amino acid decarboxylase, is a group II decarboxylase. The enzyme catalyzes the decarboxylation of aromatic L-amino acids to produce the corresponding amines. DDC produces the neurotransmitters dopamine and serotonin from L-Dopa and L-5-hydroxytryptophan, respectively. DDC inhibitors is in clinical use to treat Parkinson's disease(PD), usually co-administrated with L-DOPA. DDC would block peripheral conversion to dopamine and allow a greater percentage of L-DOPA to reach the brain, causing an increase in brain dopamine levels, and reducing the side effects of dopamine-rich blood.

Clinical and Translational Updates

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