Recombinant Human DOPA Decarboxylase/DDC Protein (His Tag)

Catalog Number: PKSH030408

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

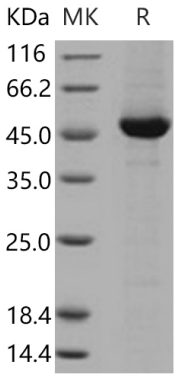
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human DOPA Decarboxylase/DDC protein Met 1-Glu 480, with an C-terminal His
Calculated MW	55.0 kDa
Observed MW	48 kDa
Accession	NP_000781.1
Bio-activity	Measured by its ability to convert the substrate 3, 4-dihydroxy L-phenylalanine (L-Dopa) 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 pmoles/min/μg.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 50mM Tris, 100mM NaCl, pH 8, 10% glycerol

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Dopa Decarboxylase (DDC), also known as AADC and Aromatic-L-amino acid decarboxylase, is a 54 kDa member of the group II decarboxylase family of proteins.It is a vitamin B6-dependent homodimeric enzyme that catalyzes the decarboxylation of both L-3,4-dihydroxyphenylalanine (L-DOPA) and L-5-hydroxytryptophan to dopamine and serotonin, respectively, which are major mammalian neurotransmitters and hormones belonging to catecholamines and indoleamines. Since L-DOPA is regularly used to treat the symptoms of Parkinson's disease, the catalytic pathway is of particular research interest. Defects of DDC are associated with severe developmental delay, oculogyric crises (OGC), as well as autosomal recessive disorder AADC deficiency, an early onset inborn error in neurotransmitter metabolism which can lead to catecholamine and serotonin deficiency.

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