Recombinant DDC protein (His tag)

Catalog Number	544470
Synonyms	AADC; DOPA decarboxylase; DDC
Species	Human
Expression System	E. coli
Accession	P20711
Molecular Weight	Predictes a molecular mass of 55.58 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 56 kDa band.

Product Information

Sequence Region	1-480
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-480 aa (P20711) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Aromatic-L-amino-acid decarboxylase (AADC) fragment (residues 1-480) is a high-purity protein optimized for stability and solubility, ideal for structural studies and enzymatic assays investigating neurotransmitter biosynthesis. AADC (DOPA decarboxylase) is a crucial enzyme in human neurotransmitter synthesis, catalyzing the decarboxylation of L-DOPA to dopamine and L-5-hydroxytryptophan to serotonin. These reactions are fundamental to the production of key monoamine neurotransmitters, underscoring AADC's importance in neurological and psychiatric research. The provided fragment encompasses the full functional domain of the enzyme, enabling detailed mechanistic and structural investigations.