



# Recombinant Protein Technical Manual

**Recombinant Mouse DOPA Decarboxylase/DDC  
Protein (His Tag)**  
RPES4439

## Product Data:

**Product SKU:** RPES4439

**Size:** 20µg

**Species:** Mouse

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** O88533

## Protein Information:

**Molecular Mass:** 55.2 kDa

**AP Molecular Mass:** 50 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 90 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 20% gly, 3mM DTT

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Aadc

## Immunogen Information:

**Sequence:** Met 1-Glu 480

## 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.