Data Sheet (Cat.No.TMPY-03852)

TargetMol

Dopamine beta-Hydroxylase Protein, Human, Recombinant (His)

General Information

Synonyms:	dopamine β-hydroxylase (dopamine β-monooxygenase);Dopamine β-Hydroxylase; dopamine beta-hydroxylase (dopamine beta-monooxygenase);DBM
Protein Construction:	A DNA sequence encoding the human DBH (P09172) (Ser26-Gly603) was expressed with an N-terminal polyhistidine tag. Predicted N terminal: His
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P09172
Molecular Weight:	67.3 kDa (predicted); 68 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

DBH is a 29 kDa copper-containing oxygenase. It can be detected in noradrenergic nerve terminals of the central and peripheral nervous systems, and is also expressed in chromaffin cells of the adrenal medulla. DBH contains our identical subunits, and its activity requires ascorbate as a cofactor. It functions in in the synthesis of small-molecule neurotransmitters that is membrane-bound, making norepinephrine the only transmitter synthesized inside vesicles. DBH has been shown to be associated with decision making and addictive behaviors such as

alcohol and smoking, attention deficit hyperactivity disorder, and also with neurological diseases such as Schizophrenia and Alzheimer's.

Reference

Rush RA. et al., 1980, Crit Rev Clin Lab Sci. 12 (3): 241-77.
Goldstein M. et al., 1964, Life Sci. 3 (7): 763-7.
S Friedman. et al., 1966, The Journal of Biological Chemistry. 241 (10): 2256-9.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481