



Recombinant Rat Tyrosine 3-monooxygenase (Th)

Product Code	CSB-EP023470RA
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P04177
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	≥85% (SDS-PAGE)
Sequence	PTPSAPSPQPKGFRRVSEQDAKQAEAVTSPRFIGRRQSLIEDARKERAAAA AAAAVA SSEPGNPLEAVVFEERDGNVNLNLLFSLRGTKPSSLSRAVKVFETFEAKIHLE TRPAQR PLAGSPHLEYFVRFEVPSGDLAALLSSVRRVSDVRSAREDKVPWFPRKVSE LDKCHHLV TKFDPDLDDHPGFSDQVYRQRRKLI AEIAFQYKHGEPIPHVEYTAEEIATWKE VYVTLK GLYATHACREHLEGFQLLERYCGYREDSIPQLEDVSRFLKERTGFQLRPVAGL LSARDFL ASLAFRVFQCTQYIRHASSPMHSPEPDCHELLGHVPMMLADRTFAQFSQDIGL ASLGASD EEIEKLSTVYWFTVEFGLCKQNGELKAYGAGLLSSYGELLHSLSEEPEVRAFD PDTAAVQ PYQDQTYQPVYFVSESFNDAKDKLRNYASRIQRPFVSKFDPYTLAIDVLDSPH TIQRSLE GVQDELHTLAHALSAIS
Source	E.coli
Target Names	Th
Protein Names	Recommended name: Tyrosine 3-monooxygenase EC= 1.14.16.2 Alternative name(s): Tyrosine 3-hydroxylase Short name= TH
Expression Region	2-498
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full Length of Mature Protein
Target Details	This protein is involved in the conversion of tyrosine to dopamine. It is the rate-limiting enzyme in the synthesis of catecholamines, hence plays a key role in the physiology of adrenergic neurons. Mutations in this gene have been associated with autosomal recessive Segawa syndrome. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final



concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.