Product Datasheet

Tyrosine Hydroxylase Antibody

Catalog No: CY5731 Reactivity: Human Mouse Rat

Isotype: Rabbit IgG Applications: WB IHC ICC FC

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Information

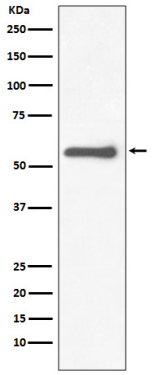
UniProt ID: P07101
All Names: EC 1.14.16.2; TH isoform 3; TH isoform a; TH-4; TY3H; TYH; Tyrosine 3-hydroxylase; Tyrosine 3-monooxygenase; tyrosine hydroxylase;
Form: Liquid
Storage instructions: Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer: pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity: Affinity-chromatography
Immunogen: A synthesized peptide
Molecular Wt.: 58 kDa

Application

WB: 1:1000~1:5000
IHC: 1:50~1:200
ICC: 1:50~1:200
FC: 1:200

Background

Tyrosine hydroxylase (TH) catalyzes the rate-limiting step in the synthesis of the neurotransmitter dopamine and other catecholamines. TH functions as a tetramer, with each subunit composed of a regulatory and catalytic domain, and exists in several different isoforms (1,2). This enzyme is required for embryonic development since TH knockout mice die before or at birth (3). Levels of transcription, translation and posttranslational modification regulate TH activity. The amino-terminal regulatory domain contains three serine residues: Ser9, Ser31 and Ser40. Phosphorylation at Ser40 by PKA positively regulates the catalytic activity of TH (4-6). Phosphorylation at Ser31 by CDK5 also increases the catalytic activity of TH through stabilization of TH protein levels (7-9).



Western blot analysis of Tyrosine Hydroxylase expression in PC12 cell lysate.