

Product Information

Anti-Tyrosine Hydroxylase antibody, Mouse monoclonal clone TH-2, purified from hybridoma cell culture

Product Number **SAB4200699**

Product Description

Anti-Tyrosine Hydroxylase antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the hybridoma TH-2 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with purified rat Tyrosine Hydroxylase. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Anti-Tyrosine Hydroxylase antibody, Mouse monoclonal recognizes an epitope located in the N-terminal region of human, bovine, sheep, rabbit, guinea pig, mouse and rat tyrosine hydroxylase (TH). The antibody may be used in various immunochemical techniques including immunoblotting, immunohistochemistry, immunofluorescence, and immunoprecipitation.^{1,4}

Tyrosine Hydroxylase (TH) also known as tyrosine 3-monooxygenase, is a tetrameric enzyme composed of four subunits. TH catalyzes the hydroxylation of L-tyrosine to L-3,4-dihydroxyphenylalanine (L-dopa) in brain and adrenal medulla which is the initial and rate limiting step of the neurotransmitters and hormones catecholamines (dopamine, norepinephrine and epinephrine) biosynthesis.⁵ Therefore, TH plays a key role in the physiology of adrenergic neurons.^{6,7} Four TH Isoforms were identified in humans, whereas other anthropoids express two TH Isoforms.^{7,8} Tyrosine Hydroxylase (TH) deficiency is associated with a broad phenotypic spectrum such as several types of dystonia, early-onset of Parkinsons, cerebral palsy or spastic paraplegia and both primary and secondary deficiencies of CSF neurotransmitter metabolites.^{9,10} Monoclonal Anti-Tyrosine Hydroxylase which is specific and has a sensitive immunoreactivity is a useful tool for identification and mapping of the catecholaminergic cells present in the brain and spinal cord as well as in sympathetic, chromaffin, and entero-chromaffin systems.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.25–0.5 µg/mL is recommended using whole extracts of rat PC-12 cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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