SANTA CRUZ BIOTECHNOLOGY, INC.

TH (C-20): sc-7847

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The enzyme tyrosine hydroxylase (TH), also designated tyrosine 3-monooxygenase (TY3H), catalyzes the conversion of tyrosine to L-DOPA, which is the rate limiting step in the biosynthesis of catecholamines such as dopamine, adrenalin and noradrenalin. TH is thought to play a role in the pathogenesis of Parkinson's disease, which is associated with reduced dopamine levels. Two transcription factor binding sites in the proximal region of the TH gene, the TPA-responsive element (TRE) and the c-AMP responsive element (CRE), have been implicated in the complex regulation of the TH gene. TH is also known to be upregulated by the glia maturation factor (GMF), a Cdc 10/SWI6 motif-containing protein called V-1, and a variety of additional compounds.

CHROMOSOMAL LOCATION

Genetic locus: TH (human) mapping to 11p15.5; Th (mouse) mapping to 7 F5.

SOURCE

TH (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TH of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7847 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-7847 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

TH (C-20) is recommended for detection of TH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TH (C-20) is also recommended for detection of TH in additional species, including canine and porcine.

Suitable for use as control antibody for TH siRNA (h): sc-36662, TH siRNA (m): sc-36661, TH shRNA Plasmid (h): sc-36662-SH, TH shRNA Plasmid (m): sc-36661-SH, TH shRNA (h) Lentiviral Particles: sc-36662-V and TH shRNA (m) Lentiviral Particles: sc-36661-V.

Molecular Weight of TH: 60 kDa.

Positive Controls: PC-12 cell lysate: sc-2250,mouse brain extract: sc-2253 or PC-12 + NGF cell lysate: sc-3808.

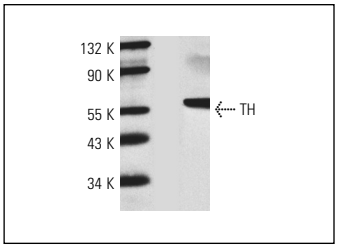
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



TH (C-20): sc-7847. Western blot analysis of TH expression in PC-12 whole cell lysate.

SELECT PRODUCT CITATIONS

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3. Bombardi, C., et al. 2006. Immunohistochemical localization of α(1a)-adrenoreceptors in muscle spindles of rabbit masseter muscle. Tissue Cell 38: 121-125.
4. Lipina, S.J., et al. 2007. Premorbid exercising in specific cognitive tasks prevents impairment of performance in parkinsonian monkeys. Brain Res. 1134: 180-186.
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6. Halliday, G., et al. 2009. No Lewy pathology in monkeys with over 10 years of severe MPTP Parkinsonism. Mov. Disord. 24: 1519-1523.
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8. Cucchiaroni, M.L., et al. 2010. Metabotropic glutamate receptor 1 mediates the electrophysiological and toxic actions of the cycad derivative β-N-Methylamino-L-alanine on substantia nigra pars compacta DAergic neurons. J. Neurosci. 30: 5176-5188.