10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Tryptophan Hydroxylase (Ser19) Antibody

Our Anti-Tryptophan Hydroxylase (Ser19) rabbit polyclonal phosphospecific primary antibody from Phos

Catalog # AN1593

Specification

Anti-Tryptophan Hydroxylase (Ser19) Antibody - Product Information

Primary Accession	Q8CGU9
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**55621**

Anti-Tryptophan Hydroxylase (Ser19) Antibody - Additional Information

Gene ID	**317675**

Other Names

MGC138871 antibody, ADHD7 antibody, FLJ37295 antibody, MGC138872 antibody, Neuronal tryptophan hydroxylase antibody, NTPH antibody, TPH 2 antibody, Tph2 antibody, TPH2 antibody, TPH2_HUMAN antibody, Tryptophan 5-hydroxylase 2 antibody, Tryptophan 5-monooxygenase 2 antibody, Tryptophan hydroxylase 2 antibody

Target/Specificity

Tryptophan hydroxylase (TPH) catalyzes the 5-hydroxylation of tryptophan, which is the first step in the biosynthesis of indoleamines (serotonin and melatonin) (Martinez et al., 2001). In mammals, serotonin biosynthesis occurs predominantly in neurons which originate in the Raphe nuclei of the brain, and melatonin synthesis takes place within the pineal gland. Although TPH catalyzes the same reaction within the Raphe nuclei and the pineal gland, TPH activity is rate-limiting for serotonin but not melatonin biosynthesis. Serotonin functions mainly as a neurotransmitter, whereas melatonin is the principal hormone secreted by the pineal gland. The activity of TPH is enhanced by phosphorylation by cAMP-dependent protein kinase (PKA) and Ca2+/calmodulin kinase II (CaM K II) (Jiang et al., 2000; Johansen et al., 1996). CaM K II phosphorylates Ser-19 which lies within the regulatory domain of TPH2 (McKinney et al., 2005).

Format

Antigen Affinity Purified from Pooled Serum

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-Tryptophan Hydroxylase (Ser19) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

Blue Ice

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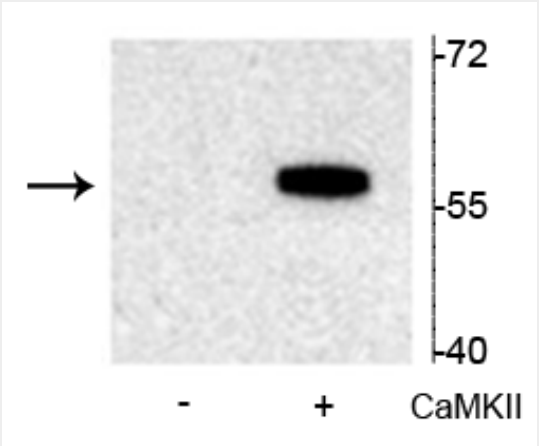
Anti-Tryptophan Hydroxylase (Ser19) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Tryptophan Hydroxylase (Ser19) Antibody - Images



Western blot of recombinant tryptophan hydroxylase incubated in the absence (-) and presence (+) of Ca2+/calmodulin dependent kinase II showing specific immunolabeling of the ~55 kDa tryptophan hydroxylase protein phosphorylated at Ser19.

Anti-Tryptophan Hydroxylase (Ser19) Antibody - Background

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