

Anti-Tyrosine Hydroxylase (Ser40) Antibody

Our Anti-Tyrosine Hydroxylase (Ser40) rabbit polyclonal phosphospecific primary antibody from Phosph Catalog # AN1600

> WB, IHC <u>P04177</u> Rabbit Polyclonal

lgG 55966

25085

Specification

Anti-Tyrosine Hydroxylase (Ser40) Antibody - Product Information

Application		
Primary Accession		
Host		
Clonality		
Isotype		
Calculated MW		

Anti-Tyrosine Hydroxylase (Ser40) Antibody - Additional Information

Gene ID Other Names

Dystonia 14 antibody, DYT14 antibody, DYT5b antibody, EC 1.14.16.2 antibody, OTTHUMP00000011225 antibody, OTTHUMP00000011226 antibody, ple antibody, Protein Pale antibody, TH antibody, The antibody, TY3H_HUMAN antibody, TYH antibody, Tyrosine 3 hydroxylase antibody, Tyrosine 3 monooxygenase antibody, Tyrosine 3-hydroxylase antibody, Tyrosine 3-monooxygenase antibody, Tyrosine hydroxylase antibody

Target/Specificity

Tyrosine hydroxylase (TH) is the rate-limiting enzyme in the synthesis of the catecholamines Dopamine and Norepinephrine. TH antibodies can therefore be used as markers for dopaminergic and noradrenergic neurons in a variety of applications including depression, schizophrenia, Parkinson's disease and drug abuse (Kish et al., 2001; Zhu et al., 2000; Zhu et al., 1999). TH antibodies can also be used to explore basic mechanisms of dopamine and norepinephrine signaling (Witkovsky et al., 2000; Salvatore et al., 2001; Dunkley et al., 2004). The activity of TH is also regulated by phosphorylation (Haycock et al., 1982; Haycock et al., 1992; Jedynak et al., 2002). Phospho-specific antibodies for the phosphorylation sites on TH can be used to great effect in studying this regulation and in identifying the cells in which TH phosphorylation occurs.

Dilution WB~~1:1000 IHC~~1:100~500

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-Tyrosine Hydroxylase (Ser40) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Shipping Blue Ice

Anti-Tyrosine Hydroxylase (Ser40) Antibody - Protocols

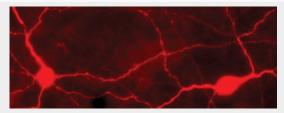
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-Tyrosine Hydroxylase (Ser40) Antibody - Images

Anti Se	r⁴⁰-TH
Non-Phospho	Phospho
Anti Pa	n-TH
	-
Non-Phospho	Phospho

Western blot of recombinant phospho-TH and non-phospho-TH showing selective immunolabeling by the phosphospecific antibody of the ~60 kDa TH phosphorylated at Ser40. The pan-specific antibody (anti-pan-TH) recognized both the phospho- and non-phospho-TH; while most importantly, the phospho-specific antibody (anti-Ser40 TH) recognized only phospho-TH.



Immunostaining of light-stimulated rabbit retina showing labeling of TH when phosphorylated at Ser40.

Anti-Tyrosine Hydroxylase (Ser40) Antibody - Background

Tyrosine hydroxylase (TH) is the rate-limiting enzyme in the synthesis of the catecholamines Dopamine and Norepinephrine. TH antibodies can therefore be used as markers for dopaminergic



and noradrenergic neurons in a variety of applications including depression, schizophrenia, Parkinson's disease and drug abuse (Kish et al., 2001; Zhu et al., 2000; Zhu et al., 1999). TH antibodies can also be used to explore basic mechanisms of dopamine and norepinephrine signaling (Witkovsky et al., 2000; Salvatore et al., 2001; Dunkley et al., 2004). The activity of TH is also regulated by phosphorylation (Haycock et al., 1982; Haycock et al., 1992; Jedynak et al., 2002). Phospho-specific antibodies for the phosphorylation sites on TH can be used to great effect in studying this regulation and in identifying the cells in which TH phosphorylation occurs.