

# Anti-Phospho-Ser<sup>31</sup> Tyrosine Hydroxylase Antibody



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**Catalog #:** p1580-31

**Size:** 100 µl

**Cite this Antibody:** PhosphoSolutions Cat# p1580-31, RRID:AB\_2492278

Host	Applications	Species Tested	Species Reactivity*	Molecular Weight
Rabbit	WB 1:1000 IHC 1:300-1:1000 ICC 1:50-1:300	H, M, R	NHP	~60 kDa

**Product Description:** Affinity purified rabbit polyclonal antibody.

**Biological Significance:** 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.

**Antigen:** Phosphopeptide corresponding to amino acid residues surrounding phospho-Ser<sup>31</sup> of rat tyrosine hydroxylase (TH).

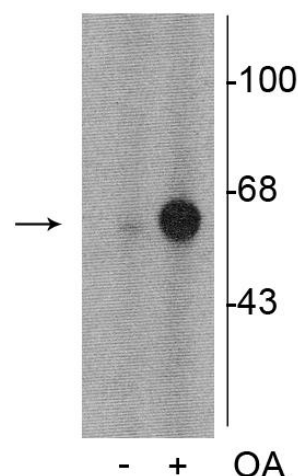
**Antibody Specificity:** Specific for endogenous levels of the ~60 kDa tyrosine hydroxylase protein phosphorylated at Ser<sup>31</sup>.

**Purification Method:** Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

**Quality Control Tests:** Western blots performed on each lot.

**Packaging:** 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

**Storage and Stability:** Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.



Western blot of PC-12 cell lysate incubated in the absence (-) and presence (+) of okadaic acid (OA, 1 µM for 60 min) showing specific immunolabeling of the ~60 kDa tyrosine hydroxylase phosphorylated at Ser<sup>31</sup>.

## Product Specific References:

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## General References:

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