

**Phospho-Ser31 Tyrosine Hydroxylase Antibody**  
Affinity purified rabbit polyclonal antibody  
Catalog # AN1031

## Specification

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### Phospho-Ser31 Tyrosine Hydroxylase Antibody - Product Information

Application	WB
Primary Accession	<a href="#">P04177</a>
Reactivity	Mouse, Rat
Predicted	Monkey
Host	Rabbit
Clonality	polyclonal
Calculated MW	60 KDa

### Phospho-Ser31 Tyrosine Hydroxylase Antibody - Additional Information

Gene ID	25085
Gene Name	TH
<b>Other Names</b>	
Tyrosine 3-monooxygenase, Tyrosine 3-hydroxylase, TH, Th	

#### Target/Specificity

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser31 conjugated to KLH.

#### Dilution

WB~~ 1:1000

#### Format

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

#### Antibody Specificity

Specific for the ~60k tyrosine hydroxylase protein phosphorylated atSer31.

#### 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

Phospho-Ser31 Tyrosine Hydroxylase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Shipping

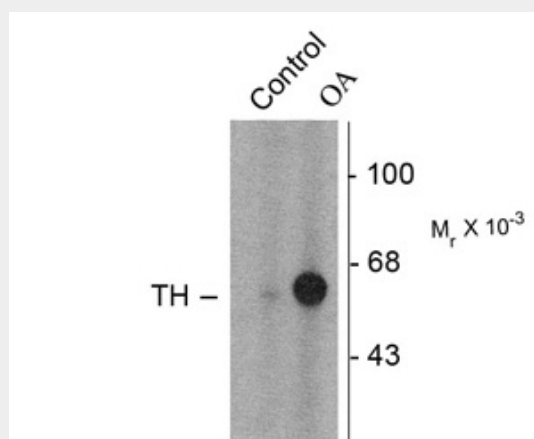
Blue Ice

### Phospho-Ser31 Tyrosine Hydroxylase 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 Cytometry](#)
- [Cell Culture](#)

### Phospho-Ser31 Tyrosine Hydroxylase Antibody - Images



Western blot of PC-12 cells incubated in the absence (Control) and presence of okadaic acid (OA, 1  $\mu$ M for 60 min) showing specific immunolabeling of the ~60k TH phosphorylated at Ser31.

### Phospho-Ser31 Tyrosine Hydroxylase 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; Jedynek 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.

### Phospho-Ser31 Tyrosine Hydroxylase Antibody - References

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