

**Phospho (Ser31) Tyrosine Hydroxylase Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10458****Specification**

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**Phospho (Ser31) Tyrosine Hydroxylase Antibody - Product Information**

Application	WB
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**Phospho (Ser31) Tyrosine Hydroxylase Antibody - Additional Information**

Application & Usage	The antibody can be used for Western blotting (1:1000), Immunofluorescence (1:1000) and Immunohistochemistry (1:1000). However, the optimal conditions should be determined individually.
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**Other Names**

TH; TYH; Tyrosine hydroxylase

**Target/Specificity**

Phospho (Ser31) THY

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

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

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

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

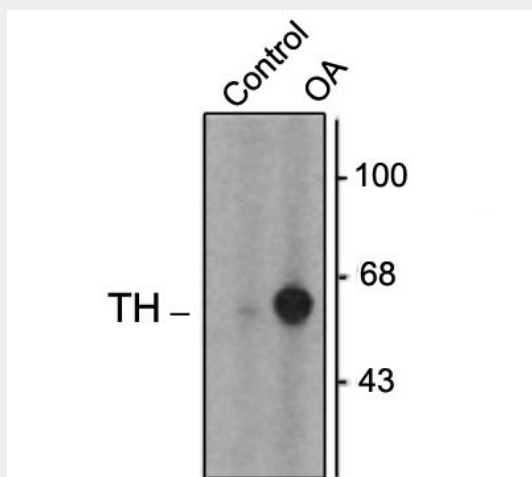
**Phospho (Ser31) Tyrosine Hydroxylase Antibody - Protein Information**

## 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; 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.