

Phospho (Ser³¹) Tyrosine Hydroxylase Antibody

CATALOG #:	3613-100
AMOUNT:	100 µl
HOST:	Rabbit
IMMUNOGEN:	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser ³¹ of rat tyrosine hydroxylase.
SPECIES REACTIVITY:	Mouse, Rat, Human
PURIFICATION:	Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.
FORMULATION:	100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
STORAGE CONDITIONS:	Store at -20°C.

DESCRIPTION:

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.

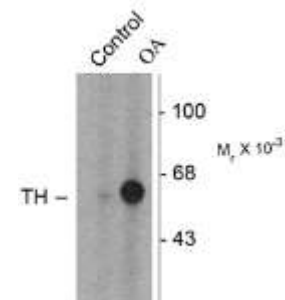
SPECIFICITY:

Antibody is specific for the ~60 kDa tyrosine hydroxylase protein phosphorylated at Ser³¹. The antibody has been directly tested for reactivity in Western blots in rat and mouse tissues. It is anticipated that the antibody will also work with non-human primate tissues based on the fact that this species has 100% homology with the amino acid sequence used as antigen.

APPLICATION AND 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.

FOR RESEARCH USE ONLY! Not to be used on humans.



Anti-Phospho Ser³¹ Tyrosine Hydroxylase

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

RELATED PRODUCTS:

- Phospho (Ser¹⁹) Tyrosine Hydroxylase Antibody (Cat. No. 3612-100)
- Tyrosine Hydroxylase Antibody (Cat. No. 3615-100)
- Phospho (Tyr¹⁴⁷²) NMDA NR2B-Subunit Antibody (Cat. No. 3616-100)
- Phospho-Tyrosine Hydroxylase Antibody (Cat. No. 3649-100)
- PTP1B Antibody (Cat. No. 3122-100)
- PTP1B Antibody (Cat. No. 3171-100)
- PTP1B Antibody (Cat. No. 3174-100)