

TPH-1 (D10C10) Rabbit mAb

✓ 100 µl
(10 western blots)



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Entrez-Gene ID #7166
Swiss-Prot Acc. #P17752

Applications W, IP Endogenous	Species Cross-Reactivity* M, (H)	Molecular Wt. 51 kDa	Isotype Rabbit IgG**
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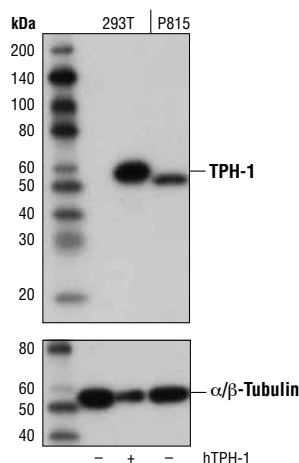
Background: Tryptophan hydroxylase (TPH) is the rate-limiting enzyme in the biosynthesis of serotonin (1) by converting tryptophan to 5-hydroxy-L-tryptophan (2). Two isoforms of TPH exist: TPH-1 is mainly expressed in the periphery, whereas the expression of TPH-2 is restricted to neuronal cells and the central nervous system (3). Most of the serotonin found throughout the body is synthesized by TPH-1 in enterochromaffin cells of the gastrointestinal tract. Targeted disruption of the *tph1* gene results in low levels of circulating and tissue serotonin (4).

Specificity/Sensitivity: TPH-1 (D10C10) Rabbit mAb recognizes endogenous levels of total TPH-1 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human TPH-1 protein.

Background References:

- (1) Hale, M.W. et al. (2011) *J Chem Neuroanat* 41, 219-26.
- (2) Silva, S.R. et al. (2011) *Anticancer Res* 31, 1153-60.
- (3) Walther, D.J. et al. (2003) *Science* 299, 76.
- (4) Amireault, P. et al. (2011) *Proc Natl Acad Sci USA* 108, 13141-6.



Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with a construct expressing full-length human TPH-1 (hTPH-1; +), and P815 cells using TPH-1 (D10C10) Rabbit mAb (upper) and α/β -Tubulin Antibody #2148 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.