

#12339 Store at -20°C

TPH-1 (D10C10) Rabbit mAb

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	M	Endogenous	51	Rabbit IgG	#P17752	7166

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Immunoprecipitation

1:50

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.

Specificity / Sensitivity

TPH-1 (D10C10) Rabbit mAb recognizes endogenous levels of total TPH-1 protein.

Species predicted to react based on 100% sequence homology:

Human

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

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).

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 U S A* 108, 13141-6.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting IP: Immunoprecipitation

Cross-Reactivity Key

H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus 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
GP: Guinea Pig Rab: rabbit All: all species expected

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