



TPH1 Polyclonal Antibody

Catalog No	YP-Ab-02802
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	TPH1
Immunogen	The antiserum was produced against synthesized peptide derived from human Tryptophan Hydroxylase. AA range:231-280
Specificity	TPH1 Polyclonal Antibody detects endogenous levels of TPH1 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	EC:1.14.16.4;TPH;TPH 1;TPRH;TRPH;Tryptophan Hydroxylase;TPH1; Tryptophan 5-hydroxylase 1;Tryptophan 5-monooxygenase 1
Observed Band	51kD
Calculated Molecular Weight	51kD
Cell Pathway	cytosol,neuron projection,
Tissue Specificity	[Isoform 2]: Seems to be less widely expressed than isoform 1.
Function	catalytic activity:L-tryptophan + tetrahydrobiopterin + O(2) = 5-hydroxy-L-tryptophan + 4a-hydroxytetrahydrobiopterin.,cofactor:Fe(2+) ion., pathway:Aromatic compound metabolism; serotonin biosynthesis; serotonin from L-tryptophan: step 1/2.,similarity:Belongs to the biopterin-dependent aromatic amino acid hydroxylase family.,similarity:Contains 1 ACT domain., subunit:Multimer of identical subunits.,tissue specificity:Isoform 2 seems to be less widely expressed than isoform 1.,

**Background**

This gene encodes a member of the aromatic amino acid hydroxylase family. The encoded protein catalyzes the first and rate limiting step in the biosynthesis of serotonin, an important hormone and neurotransmitter. Mutations in this gene have been associated with an elevated risk for a variety of diseases and disorders, including schizophrenia, somatic anxiety, anger-related traits, bipolar disorder, suicidal behavior, addictions, and others.[provided by RefSeq, Apr 2009],

matters needing attention

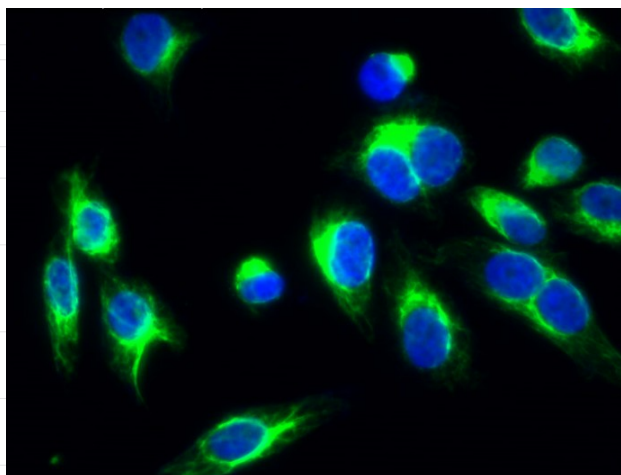
Avoid repeated freezing and thawing!

Usage suggestions

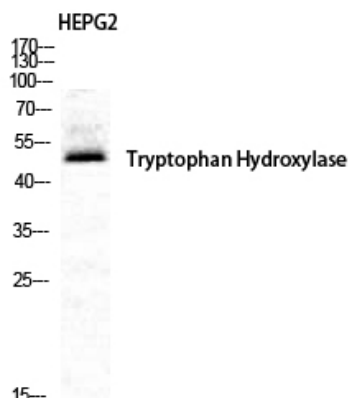
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



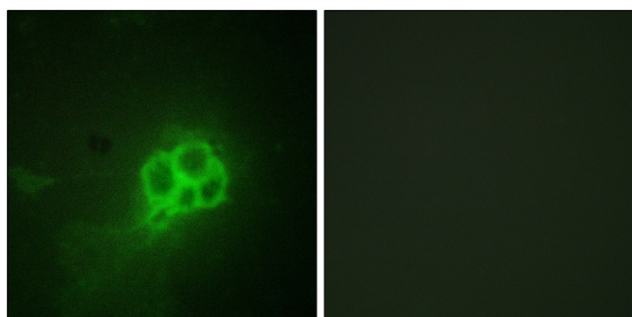
Products Images



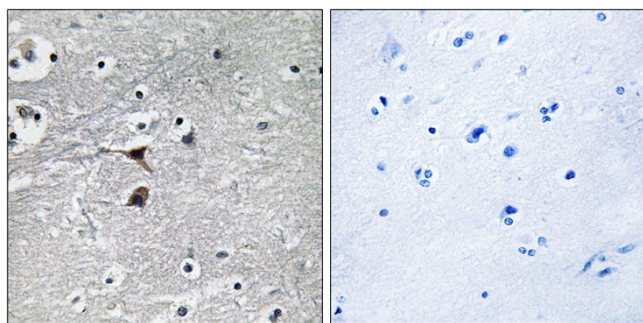
Immunofluorescence analysis of HeLa cell. 1,TPH1 Polyclonal Antibody(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog:RS3211 was diluted at 1:1000(room temperature, 50min). 3 DAPI(blue) 10min.



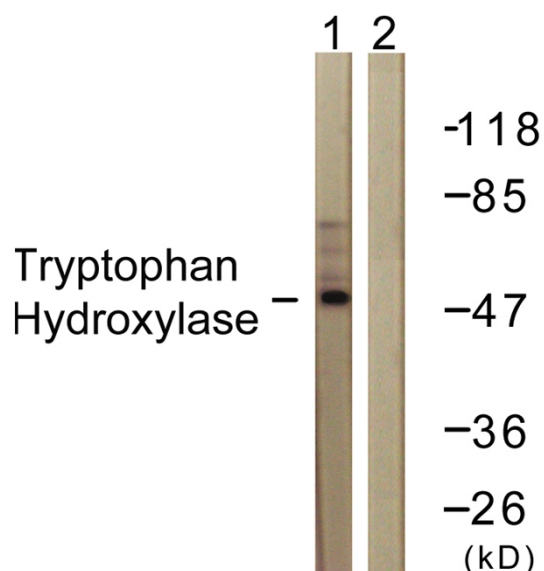
Western Blot analysis of HepG2 cells using TPH1 Polyclonal Antibody diluted at 1:500. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunofluorescence analysis of HUVEC cells, using Tryptophan Hydroxylase Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using Tryptophan Hydroxylase Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat cells, using Tryptophan Hydroxylase Antibody. The lane on the right is blocked with the synthesized peptide.