

## Anti-TPH2 Polyclonal Antibody

### Product Details

Ig Type:	IgG
Reactivity:	Human,Rat (predicted:Mouse,Cow,Horse)
Molecular Weight:	Theoretical: 54 kDa. Actual: 60 kDa.
Purification:	Protein A purified

### Applications

1. Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH6.0), Boiling bathing for 15 min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Incubation: Anti-TPH2 Polyclonal Antibody, Unconjugated (TMAB-01879) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody and DAb staining.

2. Sample:

U87Mg (Human) Cell Lysate at 30 µg

U251 (Human) Cell Lysate at 30 µg

Primary: Anti-TPH2 (TMAB-01879) at 1/1000 dilution

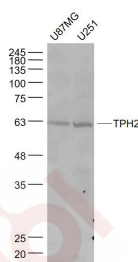
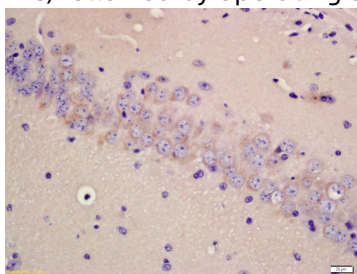
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

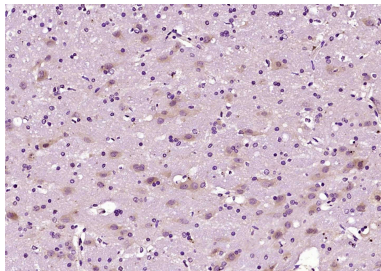
Predicted band size: 54 kDa

Observed band size: 60 kDa

3. Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (TPH2) Polyclonal Antibody, Unconjugated (TMAB-01879) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

Verified Activity:





Application: IF,IHC-Fr,IHC-P,WB

Recommended WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: KLH conjugated synthetic peptide: human TPH2

Antigen Species: Human

Gene ID: 121278

Uniprot ID: Q8IWU9

Synonyms: TPH2;NTPH;Neuronal tryptophan hydroxylase;Tryptophan 5-hydroxylase 2;Tryptophan 5-monooxygenase 2

Biology Area: Serotonin / 5HT

### Research Background

Phenylalanine hydroxylase (PAH), tyrosine hydroxylase (TH), tryptophan hydroxylase (TPH) and tryptophan hydroxylase 2 (TPH2) comprise a small family of monooxygenases that catalyze the rate-limiting step in the catabolism of aromatic L-amino acids and utilize tetrahydropterine as a cofactor. TPH2 is highly expressed in the central nervous system (CNS), mainly in the brain. TPH2 catalyzes the first step in the biosynthesis of serotonin in the CNS and melatonin in the pineal gland, and may be involved in the pathology of several neuropsychiatric disorders. Glucocorticoid-mediated reduction of TPH2 is associated with the etiology of mood disorders, specifically psychotic major depression, and TPH2 may be related to dysregulation of serotonin neurotransmission in the brain which commonly leads to suicidal behavior.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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