

Anti-Tyrosine Hydroxylase Antibody [SD080-02] - BSA and Azide free

HA750298



| | |
|----------------------------|---|
| Product Type: | Recombinant Rabbit monoclonal IgG, primary antibodies |
| Species reactivity: | Human, Mouse, Rat, Cynomolgus monkey |
| Applications: | WB, IHC-P, IF-Tissue, IHC-Fr |
| Molecular Wt: | Predicted band size: 59 kDa |
| Clone number: | SD080-02 |

Description: The enzyme tyrosine hydroxylase (TH), also designated tyrosine 3-monooxygenase (TY3H), catalyzes the conversion of tyrosine to L-dopa, which is the rate limiting step in the biosynthesis of catecholamines such as dopamine, adrenalin and noradrenalin. TH is thought to play a role in the pathogenesis of Parkinson's disease, which is associated with reduced dopamine levels. Two transcription factor binding sites in the proximal region of the TH gene, the TPA-responsive element (TRE) and the c-AMP responsive element (CRE), have been implicated in the complex regulation of the TH gene. TH is also known to be upregulated by the glia maturation factor (GMF), a Cdc 10/SWI6 motif-containing protein called V-1, and a variety of additional compounds.

Immunogen: Synthetic peptide within Human Tyrosine Hydroxylase aa 51-100 / 528.

Positive control: Mouse brain tissue lysate, Rat brain tissue lysate, mouse brain tissue, rat brain tissue, mouse striatum tissue, rat striatum tissue.

Subcellular location: Cytoplasm.

Database links: SwissProt: P07101 Human | P24529 Mouse | P04177 Rat

Recommended Dilutions:

| | |
|------------------|------------------|
| WB | 1:5,000-1:10,000 |
| IHC-P | 1:2,000 |
| IF-Tissue | 1:500-1:1,000 |
| IHC-Fr | 1:500-1:1,000 |

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

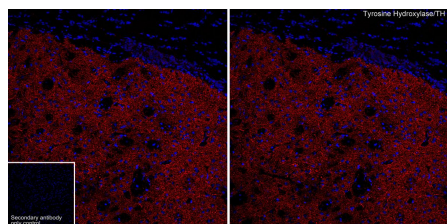
Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

**Fig1:** Application: IHC-Fr

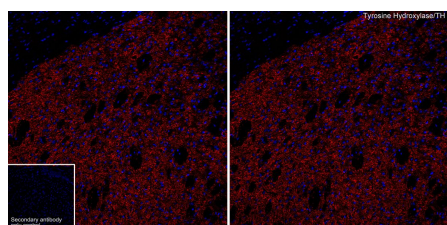
Species: Mouse

Site: Striatum

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig2:** Application: IHC-Fr

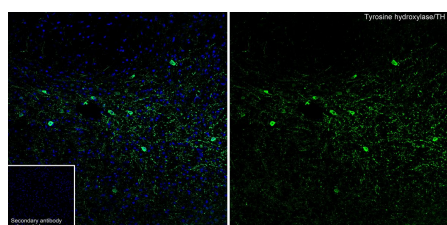
Species: Rat

Site: Striatum

Sample: Frozen section

Antibody concentration: 1:500

Antigen retrieval: Not required

**Fig3:** Application: IHC-Fr

Species: Mouse

Site: Substantia nigra

Sample: Frozen section

Antibody concentration: 1:1,000

Antigen retrieval: The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven.

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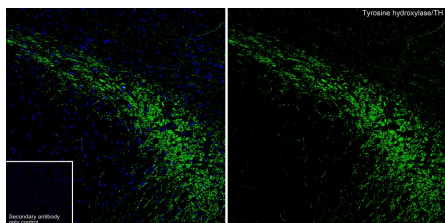
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**Fig4:** Application: IHC-Fr

Species: Mouse

Site: Striatum

Sample: Frozen section

Antibody concentration: 1:1,000

Antigen retrieval: The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven.

Fig5: Western blot analysis of Tyrosine Hydroxylase on different lysates with Rabbit anti-Tyrosine Hydroxylase antibody (HA750298) at 1/5,000 dilution.

Lane 1: Mouse brain tissue lysate

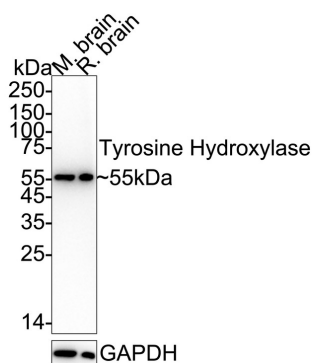
Lane 2: Rat brain tissue lysate

Lysates/proteins at 20 µg/Lane.

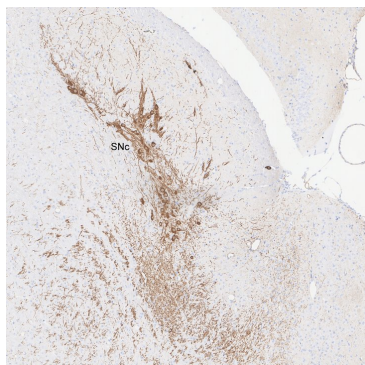
Predicted band size: 59 kDa

Observed band size: 55 kDa

Exposure time: 3 minutes; ECL: K1801;
4-20% SDS-PAGE gel.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750298) at 1/5,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig6:** Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-Tyrosine Hydroxylase antibody (HA750298) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750298) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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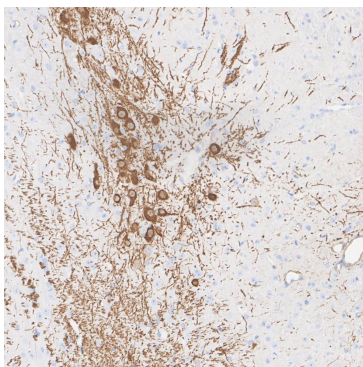


Fig7: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-Tyrosine Hydroxylase antibody (HA750298) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750298) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

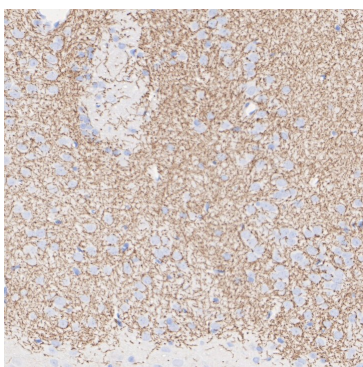


Fig8: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-Tyrosine Hydroxylase antibody (HA750298) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA750298) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

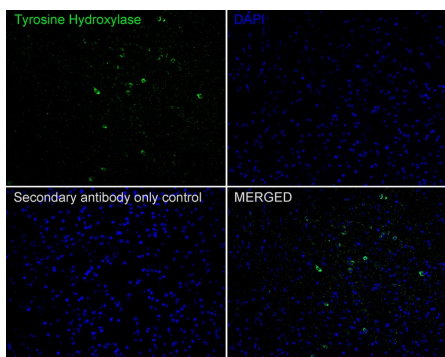


Fig9: Application: IF-tissue

Species: Mouse

Site: Substantia nigra

Sample: Paraffin-embedded section

Antibody concentration: 1:500

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Peng X et al. Germline transmission of an embryonic stem cell line derived from BALB/c cataract mice. PLoS One 9:e90707 (2014).
2. Guo S et al. Optogenetic activation of the excitatory neurons expressing CaMKIIa in the ventral tegmental area upregulates the locomotor activity of free behaving rats. Biomed Res Int 2014:687469 (2014).

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