Product Datasheet

Tyrosine Hydroxylase Antibody (5C7.2E8)
NBP2-42211SS

Unit Size: 0.025 mg

Store at -20C. Avoid freeze-thaw cycles.

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Publications: 4

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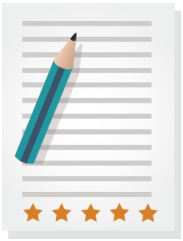
Updated 2/9/2023 v.20.1



NBP2-42211SS

Tyrosine Hydroxylase Antibody (5C7.2E8)

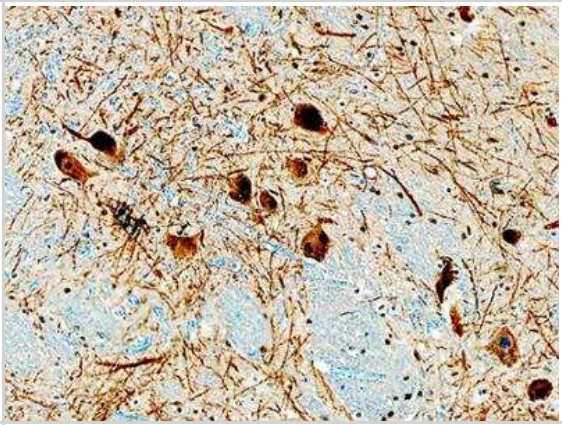
Product Information	
Unit Size	0.025 mg
Concentration	1.0 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	5C7.2E8
Preservative	0.02% Sodium Azide
Isotype	IgG2a Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	60 kDa

Product Description	
Host	Mouse
Gene ID	7054
Gene Symbol	TH
Species	Human, Mouse, Rat
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 31586624).
Marker	Neuronal Marker
Immunogen	This Tyrosine Hydroxylase Antibody (5C7.2E8) is made against a partial recombinant human Tyrosine Hydroxylase protein made to a C-terminal sequence (between amino acids 300-528) [Uniprot: P07101].

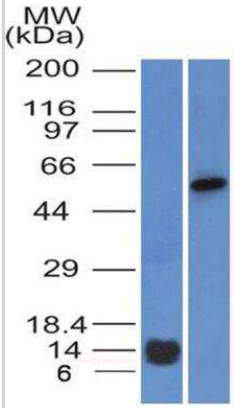
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 3 ug/mL, Immunohistochemistry 5 - 15 ug/mL, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 5 - 15 ug/mL

Images

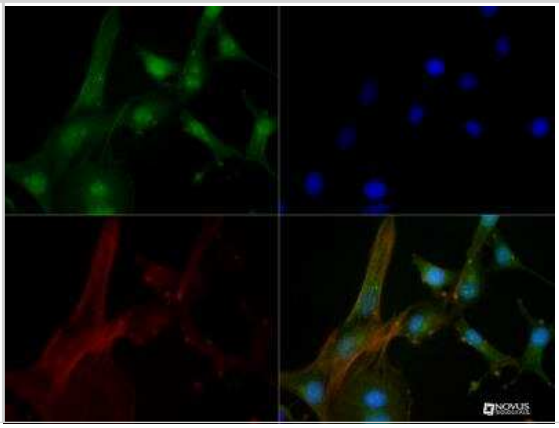
Immunohistochemistry: Tyrosine Hydroxylase Antibody (5C7.2E8) [NBP2-42211] - Immunohistochemical analysis of a FFPE tissue section of human brain/substantia nigra using Tyrosine Hydroxylase antibody (clone 5C7.2E8) at 15 ug/mL. This representative photomicrograph shows strong immunostaining of tyrosine hydroxylase/TH in TH-positive neurons.



Western Blot: Tyrosine Hydroxylase Antibody (5C7.2E8) [NBP2-42211] - Western blot analysis of a partial recombinant human Tyrosine Hydroxylase protein and a lysate of HEK293 cells using 3 ug/mL of Tyrosine Hydroxylase antibody clone 5C7.2E8. The antibody detected ~11 kDa and ~58 kDa specific bands representing the recombinant and the endogenous TH proteins respectively.



Immunocytochemistry/Immunofluorescence: Tyrosine Hydroxylase Antibody (5C7.2E8) [NBP2-42211] - PC-12 cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with Tyrosine Hydroxylase (5C7.2E8) at a 1:100 dilution overnight at 4 degrees C and detected with DyLight 488 (green). Actin was detected with Phalloidin 568 (red) at a 1:200 dilution. Nuclei were detected with DAPI (blue). Cells were imaged using a 40X objective.



Publications

Rueda-Gensini L, Serna JA, Rubio D et al. Three-dimensional neuroimmune co-culture system for modeling Parkinson's Disease microenvironments in vitro Biofabrication 2023-06-27 [PMID: 37369196] (ICC/IF, Human)

Jie Y, Berga SI, Meng Q Et Al. Cabergoline Stimulates Human Endometrial Stromal Cell Decidualization and Reverses Effects of Interleukin-1 beta in vitro The Journal of clinical endocrinology and metabolism 2021-07-14 [PMID: 34260712] (IHC-P)

Xing R, Liu X, Tian B et al. Neuroprotective effect of Na+ /H+ exchangers isoform-1 inactivation against 6-hydroxydopamine-induced mitochondrial dysfunction and neuronal apoptosis in Parkinson\'s disease models Drug development research 2021-02-03 [PMID: 33538000]

Zhu J, Gao W, Shan X et al. Apelin-36 mediates neuroprotective effects by regulating oxidative stress, autophagy and apoptosis in MPTP-induced Parkinson\'s disease model mice Brain Res. 2019-10-03 [PMID: 31586624] (IF/IHC, Mouse)

Procedures

Western Blot protocol for Tyrosine Hydroxylase Antibody (NBP2-42211)
Tyrosine Hydroxylase Antibody (5C7.2E8):
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 25 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute anti-Tyrosine Hydroxylase primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.
Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence protocol for Tyrosine Hydroxylase Antibody (NBP2-42211)
Tyrosine Hydroxylase Antibody (5C7.2E8):
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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