

# Product Datasheet

## S100B Antibody (EP1576Y)

### NB110-57478

Unit Size: 0.1 ml

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

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**NB110-57478**

S100B Antibody (EP1576Y)

Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	EP1576Y
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Protein A purified
Buffer	59% PBS (pH 7.2), 0.05% BSA and 40% Glycerol
Target Molecular Weight	11 kDa
Product Description	
Host	Rabbit
Gene ID	6285
Gene Symbol	S100B
Species	Human, Mouse, Rat, Goat, Rhesus Macaque, Zebrafish
Marker	Astrocyte Marker
Immunogen	A synthetic peptide corresponding to residues on the C-terminus of human S100-Beta was used as an immunogen.
Notes	Produced using Abcam's RabMab® technology. RabMab® technology is covered by the following U.S. Patents, No. 5,675,063 and/or 7,429,487.
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation 1:40, Immunohistochemistry-Paraffin 1:250-500, Immunohistochemistry-Frozen 1:10-1:500
Application Notes	Mouse cross reactivity tested by western blot and IHC. Rat cross reactivity tested by western blot and IHC. Use in ICC/IF was reported in the scientific literature (PMID: 20649577) Use in Immunohistochemistry-Frozen reported in scientific literature (PMID 24626220)



## Publications

- Hughes LJ, Park R, Lee MJ et al. Yap/Taz are required for establishing the cerebellar radial glia scaffold and proper foliation Dev. Biol. 2019-10-03 [PMID: 31586559]
- Nam MH, Han KS, Lee J et al. Activation of Astrocytic mu-Opioid Receptor Causes Conditioned Place Preference Cell Rep 2019-07-30 [PMID: 31365861] (IF/IHC, Mouse)
- Kubo A, Misonou H, Matsuyama M et al. Distribution of endogenous normal tau in the mouse brain. J. Comp. Neurol. 2018-11-08 [PMID: 30408165] (ICC/IF, Mouse)
- Okun E, Marton D, Cohen D et al. Sirt6 alters adult hippocampal neurogenesis PLoS ONE 2017-06-23 [PMID: 28644902] (IHC-Fr, Mouse)
- Kwan J, Sczaniecka A, Heidary Arash E et al. DLG5 connects cell polarity and Hippo signaling protein networks by linking PAR-1 with MST1/2. Genes Dev. 2016-12-15 [PMID: 28087714] (IF/IHC, Mouse)
- Cheng CY, Lin JG, Tang NY et al. Electroacupuncture-Like Stimulation at the Baihui (GV20) and Dazhui (GV14) Acupoints Protects Rats against Subacute-Phase Cerebral Ischemia-Reperfusion Injuries by Reducing S100B-Mediated Neurotoxicity. PLoS ONE 2014-03-14 [PMID: 24626220] (IHC-Fr, Rat)
- Shimamoto S, Tsuchiya M, Yamaguchi F et al. Ca<sup>2+</sup>/S100 proteins inhibit the interactions of FKBP38 with Bcl-2 and Hsp90. Biochem J 2013-12-03 [PMID: 24295050] (WB, Human)
- Furusato E, Cameron JD, Newsom RW et al. Ocular perivascular epithelioid cell tumor: report of 2 cases with distinct clinical presentations. Hum Pathol 2010-05-01 [PMID: 20236689]
- Yang L, Li F, Zhang H et al. Astrocyte activation and memory impairment in the repetitive febrile seizures model. Epilepsy Res 2009-10-01 [PMID: 19643577] (WB, IF/IHC)
- Yang L, Li F, Ge W et al. Protective effects of naloxone in two-hit seizure model. Epilepsia 2010-03-01 [PMID: 19674055] (WB)
- Liu C-H, Lin Y-W, Tang N-Y et al. Neuroprotective Effect of Uncaria rhynchophylla in Kainic Acid-Induced Epileptic Seizures by Modulating Hippocampal Mossy Fiber Sprouting, Neuron Survival, Astrocyte Proliferation, and S100B Expression. Evid Based Complement Alternat Med. 2012-01-01 [PMID: 21837247]
- Kitazawa M, Cheng D, Tsukamoto MR et al. Blocking IL-1 Signaling Rescues Cognition, Attenuates Tau Pathology, and Restores Neuronal [beta]-Catenin Pathway Function in an Alzheimer's Disease Model. Journal of Immunology (Baltimore, Md : 1950). 2011-11-16 [PMID: 22095718]



## Procedures



**Immunohistochemistry Protocol for S100B Antibody (NB110-57478)****Immunohistochemistry Protocol for Paraffin-embedded Tissues****1. Solutions and reagents****1.1. Xylene****1.2. Ethanol, anhydrous denatured, histological grade (100%, 95%, 70%)****1.3. Washing buffer:**

TBST washing buffer: 1XTBS/0.1% Tween-20

To prepare stock solution of 10X TBS: add 24.2 g Trizma base and 80 g sodium chloride to 1L of dH<sub>2</sub>O. Adjust pH to 7.6.

Working solution. 1XTBST/0.1% Tween-20: add 100ml 10XTBS to 900 ml dH<sub>2</sub>O. Add 1 ml Tween-20 and mix well.

**1.4. Distilled water (dH<sub>2</sub>O)****1.5. Antigen Retrieval Solution:**

0.01M Sodium Citrate Buffer, pH 6.0

To prepare stock solutions:

Solution A. 0.1 M citric acid solution: dissolve 21.0 g of citric acid, monohydrate (C<sub>6</sub>H<sub>8</sub>O<sub>7</sub>·H<sub>2</sub>O) in 1 liter of dH<sub>2</sub>O.

Solution B. 0.1M sodium citrate solution: dissolve 29.4 g trisodium citrate dihydrate (C<sub>6</sub>H<sub>5</sub>Na<sub>3</sub>O<sub>7</sub>·2H<sub>2</sub>O) in 1 liter of dH<sub>2</sub>O.

Working solution: Add 9 ml of Stock solution A and 41 ml of stock solution B to 450 ml of dH<sub>2</sub>O. Adjust pH to 6.0.

**1.6. 3% Hydrogene Peroxide****1.7. Blocking buffer:**

PBS (Dulbeccos Phosphate Buffered Salts, 1X, catalog #21-031-CV from Mediatech, Inc.) + 10% serum (serum origin depends on the host of the secondary antibody)

**1.8. Hematoxylin QS (catalog #H-3404 from Vector Laboratories, Inc.)****1.9. Permanent Mounting medium (VectaMount, catalog# H-5000 Vector Laboratories, Inc.)****2. Protocol****2.1. Deparaffinization/Rehydration****2.1.1. Heat slides in an oven at 65C for 1 hour.**

2.1.2. De-paraffinize/hydrate using the following series of washes: two Xylene washes (5 min each), followed by two 100% ethanol rinses (5 min each), followed by 95% ethanol, 70% ethanol, 50% ethanol, 30% ethanol, followed by H<sub>2</sub>O and a TBST wash for 5 min on a shaker.

**2.2. Antigen Retrieval****2.2.1. Immerse slides into staining dish containing Antigen Retrieval Solution.****2.2.2. Place covered staining dish into the rice cooker. Add 120 ml of dH<sub>2</sub>O.**

2.2.3. When cook is turned to warm (about 20 to 30 min), unplug the cooker and remove the staining dish to the bench top.

2.2.4. Allow to cool down, without cover, for 20 min.

**2.3. Staining****2.3.1. Wash slides with TBST for 5 min on a shaker.****2.3.2. Inactivate endogenous peroxidase by covering tissue with 3% hydrogen peroxide for 10 min.****2.3.3. Wash slides three times with TBST (3 min each on a shaker).****2.3.4. Block slides with the blocking solution for 1 hour.****2.3.5. Dilute primary antibody in the blocking buffer per recommendation on the data sheet.****2.3.6. Apply primary antibody to each section and incubate overnight in the humidified chamber (4C).****2.3.7. Wash slides three times with TBST (3 min each on a shaker).**

2.3.8. Apply to each section secondary HRP-conjugated anti-rabbit antibody diluted in the blocking solution per manufacturers recommendation; incubate for 1 hour at room temperature.

**2.3.9. Wash slides three times with TBST (3 min each on a shaker).****2.3.10. Add freshly prepared DAB substrate to the sections.**

2.3.11. Incubate tissue sections with the substrate at room temperature until suitable staining develops (generally 2 to 5 min).

**2.3.12. Rinse sections with water.****2.3.13. Counterstain with Hematoxylin.****2.3.14. Rinse sections with water.**

2.3.15. Dehydrate samples using two rinses with 100% Ethanol (20 dips per rinse) followed by two rinses with Xylene (30 dips per rinse).

**2.3.16. Mount coverslips on slides using Permount medium.**



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