

Product Datasheet

NHE3/SLC9A3 Antibody (19F5)

NB110-61586

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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NB110-61586

NHE3/SLC9A3 Antibody (19F5)

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	19F5
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	Tris-Glycine and 0.15M NaCl
Target Molecular Weight	93 kDa
Product Description	
Host	Mouse
Gene ID	6550
Gene Symbol	SLC9A3
Species	Rat, Rabbit, Human (Negative)
Reactivity Notes	Immunogen sequence has 83% homology to mouse. Does not react with human.
Specificity/Sensitivity	This antibody is specific for NHE3. It does not show any cross-reactivity with any other NHE isoforms.
Immunogen	Fusion protein representing the C-terminal 131 amino acids of rabbit NHE3. [UniProt# P26432]
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 0.5 ug/ml, ELISA, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen 1:10-1:500
Application Notes	In Western blot, a band can be seen at ~93 kDa.



Publications

Man A, Chen M, Wu Z et al. Renal Effects of Fetal Reprogramming With Pentaerythritol Tetranitrate in Spontaneously Hypertensive Rats *Front Pharmacol*. 2020-04-29 [PMID: 32410988] (WB, Rat)

Saad S, Zhang J, Yong R et al. Role of the EGF receptor in PPARgamma-mediated sodium and water transport in human proximal tubule cells. *Diabetologia* 2013-01-31 [PMID: 23370527] (IHC-P, Rat)

Kocinsky HS, Girardi AC, Biemesderfer D, Nguyen T, Mentone S, Orlowski J, Aronson PS. Use of phospho-specific antibodies to determine the phosphorylation of endogenous Na⁺/H⁺ exchanger NHE3 at PKA consensus sites. *Am J Physiol Renal Physiol*;289(2):F249-58. 2005-08-01 [PMID: 15687252]

Sabolic I, Herak-Kramberger CM, Ljubojevic M, Biemesderfer D, Brown D. NHE3 and NHERF are targeted to the basolateral membrane in proximal tubules of colchicine-treated rats. *Kidney Int*;61(4):1351-64. 2002-04-01 [PMID: 11918742] (WB, ICC/IF, Rat)

Bagnis C, Marsolais M, Biemesderfer D, Laprade R, Breton S. Na⁺/H⁺-exchange activity and immunolocalization of NHE3 in rat epididymis. *Am J Physiol Renal Physiol*;280(3):F426-36. 2001-03-01 [PMID: 11181404] (IF/IHC, Rat)

Girardi AC, Titan SM, Malnic G, Reboucas NA. Chronic effect of parathyroid hormone on NHE3 expression in rat renal proximal tubules. *Kidney Int*;58(4):1623-31. 2000-10-01 [PMID: 11012896] (WB, IF/IHC, Rat)

Zhang Y, Norian JM, Magyar CE, Holstein-Rathlou NH, Mircheff AK, McDonough AA. In vivo PTH provokes apical NHE3 and NaPi2 redistribution and Na-K-ATPase inhibition. *Am J Physiol*;276(5 Pt 2):F711-9. 1999-05-01 [PMID: 10330053] (WB, Rat)

Biemesderfer D et al. Monoclonal antibodies for high-resolution localization of NHE3 in adult and neonatal rat kidney. *Am J Physiol*;273(2 Pt 2):F289-99. 1997-08-01 [PMID: 9277590] (WB, ICC/IF, ELISA, IHC-Fr, Rabbit, Rat)

Biemesderfer D, Nagy T, DeGray B, Aronson PS. Specific association of megalin and the Na⁺/H⁺ exchanger isoform NHE3 in the proximal tubule. *J Biol Chem*;274(25):17518-24. 1999-06-18 [PMID: 10364184] (IP, Rabbit)

Biemesderfer D, DeGray B, Aronson PS. Membrane topology of NHE3. Epitopes within the carboxyl-terminal hydrophilic domain are exoplasmic. *J Biol Chem*. 273(20):12391-6. 1998-05-15 [PMID: 9575193] (ELISA, IP, WB, Rabbit)



Procedures

Protocol specific for Sodium / Hydrogen Exchanger 3 Antibody (NB110-61586)

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH₂O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% NFD_M + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the mouse anti-NHE3 primary antibody (NB 110-61586) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted mouse-IgG 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 [TBS + 0.1% Tween] 3 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 (Pierce ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-
techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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