

Product Datasheet

KCC2/SLC12A5 Antibody (S1-12) - BSA Free NBP2-59337

Unit Size: 100 ug

Store at -20C.

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Publications: 2

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NBP2-59337

KCC2/SLC12A5 Antibody (S1-12) - BSA Free

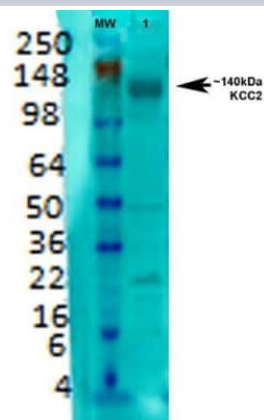
Product Information	
Unit Size	100 ug
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C.
Clonality	Monoclonal
Clone	S1-12
Preservative	0.09% Sodium Azide
Isotype	IgG2a
Purity	Protein G purified
Buffer	PBS (pH 7.4), 50% Glycerol

Product Description	
Description	Novus Biologicals Mouse KCC2/SLC12A5 Antibody (S1-12) - BSA Free (NBP2-59337) is a monoclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-KCC2/SLC12A5 Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	57468
Gene Symbol	SLC12A5
Species	Human, Mouse, Rat
Specificity/Sensitivity	Detects 140kDa.
Immunogen	Fusion protein amino acids 932-1043 corresponding to rat KCC2

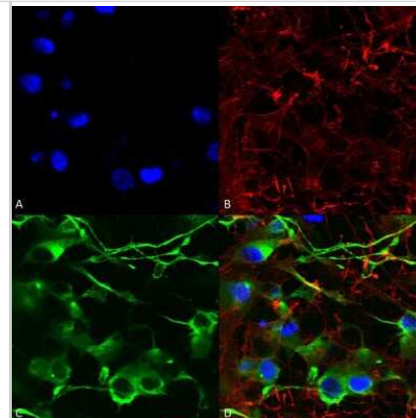
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:300, Immunocytochemistry/ Immunofluorescence 1:100, Immunoprecipitation

Images

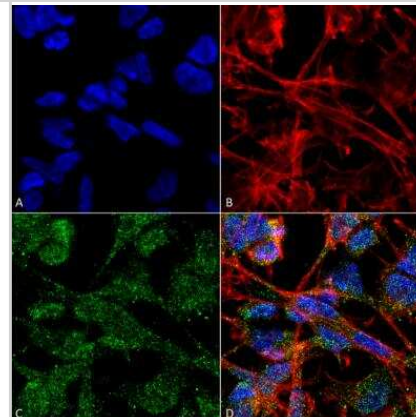
Western Blot: KCC2/SLC12A5 Antibody (S1-12) [NBP2-59337] - Western Blot analysis of Rat brain membrane lysate showing detection of KCC2/SLC12A5 protein using Mouse Anti-KCC2/SLC12A5 Monoclonal Antibody, Clone S1-12 (NBP2-59337). Primary Antibody: Mouse Anti-KCC2/SLC12A5 Monoclonal Antibody (NBP2-59337) at 1:1000.



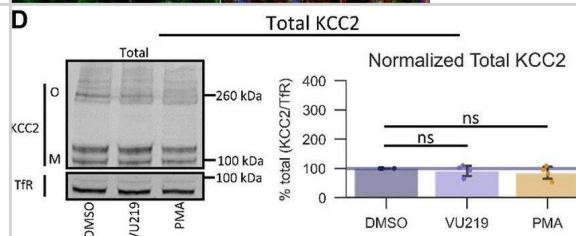
Immunocytochemistry/Immunofluorescence: KCC2/SLC12A5 Antibody (S1-12) [NBP2-59337] - Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-KCC2/SLC12A5 Monoclonal Antibody, Clone S1-12 (NBP2-59337). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-KCC2/SLC12A5 Monoclonal Antibody (NBP2-59337) at 1:200 for overnight at 4C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) KCC2/SLC12A5 Antibody (D) Composite.



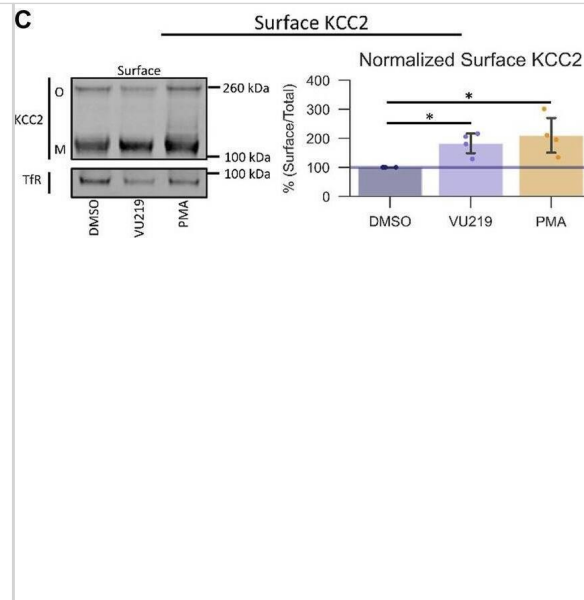
Immunocytochemistry/Immunofluorescence: KCC2/SLC12A5 Antibody (S1-12) [NBP2-59337] - Tissue: SK-N-BE Cells (Human Neuroblastoma cells). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-KCC2 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:200 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60 min at RT, 5 min at RT. Localization: Membrane. Magnification: 60X.



VU0500469 potentiates KCC2 by a unique mechanism. All experiments conducted using the Cl⁻ flux assay in HEK-293 cells overexpressing KCC2 at 37C, unless otherwise noted. (A) Schematic depicting investigated small molecule targets known to regulate Cl⁻ homeostasis. (B) Co-treatment of modulators of Cl⁻ homeostasis from (A) with or without VU0500469 (n ≥ 16). (C) Left: representative Western blot of biotinylated surface fraction from cells treated with vehicle (DMSO), VU0916219 (VU219), or the positive control phorbol 12-myristate 13-acetate (PMA). Band intensity was normalized to Transferrin Receptor (TfR) levels. O, oligomeric KCC2, M, monomeric KCC2. Right: quantification of Surface KCC2/Total KCC2 normalized to TfR levels. (D) Left: representative Western blot of total protein fraction from cells treated as in (C). Right: quantification of total KCC2 normalized to TfR levels. (n = 4) Error bars represent SD. Statistical significance calculated by Mann-Whitney U test (B) or paired t-test (C,D): * = p < 0.05, *** = p < 0.001. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35813195>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



VU0500469 potentiates KCC2 by a unique mechanism. All experiments conducted using the Cl⁻ flux assay in HEK-293 cells overexpressing KCC2 at 37C, unless otherwise noted. (A) Schematic depicting investigated small molecule targets known to regulate Cl⁻ homeostasis. (B) Co-treatment of modulators of Cl⁻ homeostasis from (A) with or without VU0500469 (n ≥ 16). (C) Left: representative Western blot of biotinylated surface fraction from cells treated with vehicle (DMSO), VU0916219 (VU219), or the positive control phorbol 12-myristate 13-acetate (PMA). Band intensity was normalized to Transferrin Receptor (TfR) levels. O, oligomeric KCC2, M, monomeric KCC2. Right: quantification of Surface KCC2/Total KCC2 normalized to TfR levels. (D) Left: representative Western blot of total protein fraction from cells treated as in (C). Right: quantification of total KCC2 normalized to TfR levels. (n = 4) Error bars represent SD. Statistical significance calculated by Mann–Whitney U test (B) or paired t-test (C,D): * = p < 0.05, *** = p < 0.001. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/35813195>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Francis J Prael Iii, Kwangho Kim, Yu Du, Brittany D Spitznagel, Gary A Sulikowski, Eric Delpire, C David Weaver
Discovery of Small Molecule KCC2 Potentiators Which Attenuate In Vitro Seizure-Like Activity in Cultured Neurons.
Frontiers in cell and developmental biology 2022-04-04 [PMID: 35813195] (Immunohistochemistry, Rat)

Luo Y, Zhang D et al. Dexamethasone protects against arsanilic acid induced rat vestibular dysfunction through the BDNF and JNK 1/2 signaling pathways. Mol Med Rep 2019-01-03 [PMID: 30628712] (IF/IHC, Rat)



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Products Related to NBP2-59337

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-96778	Mouse IgG2a Isotype Control (M2A)

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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