

Product Datasheet

RGS8 Antibody NBP2-20153

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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Publications: 5

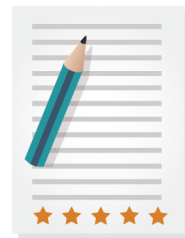
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NBP2-20153**RGS8 Antibody****Product Information**

Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Thimerosal
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	PBS (pH 7), 20% Glycerol, 1% BSA
Target Molecular Weight	21 kDa

Product Description

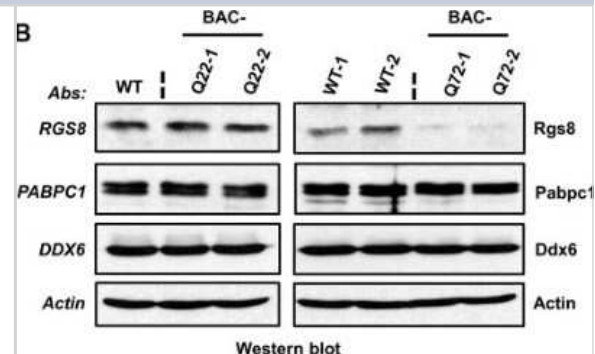
Description	Novus Biologicals Rabbit RGS8 Antibody (NBP2-20153) is a polyclonal antibody validated for use in WB. Anti-RGS8 Antibody: Cited in 5 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	85397
Gene Symbol	RGS8
Species	Human, Mouse
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 30194296).
Immunogen	Recombinant protein encompassing a sequence within the center region of human RGS8. The exact sequence is proprietary.

Product Application Details

Applications	Western Blot
Recommended Dilutions	Western Blot 1:500-1:3000

Images

Western Blot: RGS8 Antibody [NBP2-20153] - Decreased steady-state levels of Rgs8 message and protein in BAC-Q72 mice. Western blot analyses indicate reduction of Rgs8 steady-state levels in cerebella of BAC-Q72 mice, but no change in BAC-Q22 mice when compared with wild-type mice. The blot is a representative Western blot of 3 independently performed experiments with 2 animals each per BAC line. Image collected and cropped by CiteAb from the following publication ([//dx.plos.org/10.1371/journal.pgen.1005182](https://doi.org/10.1371/journal.pgen.1005182)) licensed under a CC-BY license.



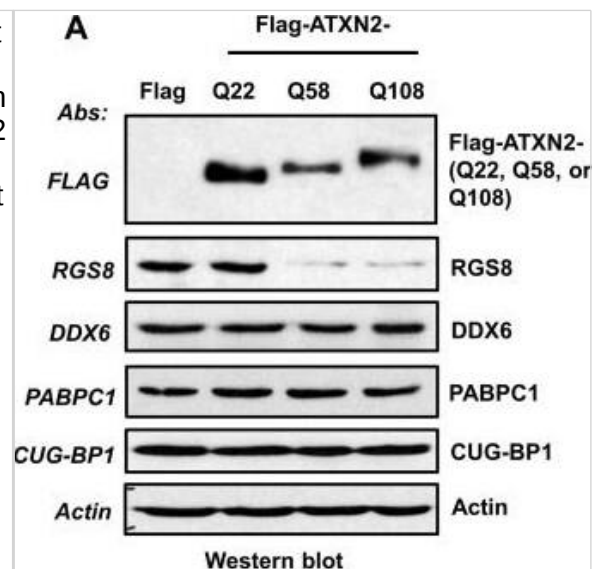
Western Blot: RGS8 Antibody [NBP2-20153] - Sample (30 ug of whole cell lysate) A: NT2D1 B: IMR32 12% SDS PAGE gel, diluted at 1:1000.



Silencing of STAU1 mitigates SCA2 phenotypes. a Stau1 haploinsufficiency improves abnormal motor behavior of ATXN2Q127 mice as determined by rotarod behavior at 8, 12, 16, & 20 weeks of age. ATXN2Q127;Stau1^{+/-} mice (green) have improved rotarod performance compared with ATXN2Q127 littermates (red) starting at 12 weeks of age. Note that Stau1 haploinsufficiency (orange) by itself does not alter motor function; n = 9–15 mice per group. Values shown are mean ± SE. Significance was determined using generalized estimating equations (GEE). NS, nonsignificant, *P < 0.05, **P < 0.01. b, c Reduction of Stau1 in vivo improves levels of key cerebellar proteins towards normalization. b Western blotting of cerebellar extracts from ATXN2Q127;Stau1^{+/-} mice showing improvement of protein levels for Calb1, Pcp2, Rgs8, Pcp4, Homer3, & Fam107b towards normalization. Each lane represents cerebellar extract from an individual mouse. β-Actin is used as a loading control & the blots are from three replicate experiments. c Quantitative analysis of western blots shown in b. Data are mean ± SD, **P < 0.01, ***P < 0.001, Student t-test. d Combined immunostaining of ATXN2 (red) & Stau1 (green) of cerebellar sections from ATXN2Q127 & crossed ATXN2Q127;Stau1^{+/-} mice (34 weeks of age) demonstrating reduced ATXN2-Stau1 aggregates in crossed ATXN2Q127;Stau1^{+/-} mice. Scale bar, 30 μM. e Model for STAU1 in the pathology of SCA2 & other neurodegenerative diseases Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30194296>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: RGS8 Antibody [NBP2-20153] - Overexpression of mutant ATXN2 in human SH-SY5Y cells recapitulates down-regulation of in vivo steady-state levels of Rgs8 in BAC-Q72 mice. Cells were transfected with plasmids encoding Flag-tagged cDNAs of human ATXN2 containing Q22 or Q58 or Q108 repeats. Forty-eight hrs post-transfection, cells were selected with hygromycin (40 µg/ml) for 5–7 days & hygromycin resistant cells were harvested as two aliquots. (A) Protein extracts were prepared from one aliquot & subjected to Western blot analyses to measure steady-state levels of RGS8. The blots were re-probed for β-Actin as an internal loading control. (B) Quantitative RT-PCR analyses of synthesized cDNAs from the other aliquot demonstrate moderate reduction of RGS8 mRNA in cells expressing Flag-ATXN2-Q108. The data are means ± SD, *p<0.05. (C) Mutant ATXN2 specifically induces decrease of RGS8 expression. MYC-tagged RGS8 cDNA including 5' & 3' UTRs was cloned under the transcriptional control of the CMV promoter & transfected into short-term hygromycin selected SH-SY5Y cell lines expressing Flag-tagged ATXN2-Q22, -Q58 or -Q108. Forty-eight hrs post-transfection, levels of exogenous RGS8 are significantly decreased in cells expressing ATXN2-Q58 or -Q108 compared with cells expressing wild-type ATXN2-Q22. To control for equal transfection, we monitored levels of GFP, which was expressed as an independent cassette in the plasmid. Blots were re-probed for β-actin as an internal loading control. The blot represents one of three independent experiments. Image collected & cropped by CiteAb from the following publication (<https://dx.plos.org/10.1371/journal.pgen.1005182>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Tejwani L, Ravindra NG, Lee C et al. Longitudinal single-cell transcriptional dynamics throughout neurodegeneration in SCA1 Neuron 2023-11-16 [PMID: 38016472] (WB, Mouse)

Details:
Dilution 1:1000

Figueroa K, Anderson C, Paul S et al. Slc9a6 mutation causes Purkinje cell loss and ataxia in the shaker rat bioRxiv 2022-03-30 [PMID: 36621975] (WB, Rat)

Paul S, Dansithong W, Figueroa KP et al. Staufen1 links RNA stress granules and autophagy in a model of neurodegeneration. Nat Commun 2018-09-07 [PMID: 30194296] (WB, Mouse)

Scoles DR, Meera P, Schneider MD et al. Antisense oligonucleotide therapy for spinocerebellar ataxia type 2. Nature. 2017-04-20 [PMID: 28405024] (WB)

Dansithong W, Paul S, Figueroa KP et al. Ataxin-2 Regulates RGS8 Translation in a New BAC-SCA2 Transgenic Mouse Model PLoS Genet. 2015-04-01 [PMID: 25902068] (WB, Human)



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Products Related to NBP2-20153

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
H00085397-P01-10ug	Recombinant Human RGS8 GST (N-Term) Protein

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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