Product Datasheet

ST2/IL-33R Antibody - BSA Free
NBP2-53096

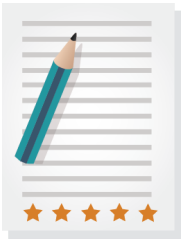
Unit Size: 100 ul

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

Publications: 3

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP2-53096

Updated 2/23/2025 v.20.1



NBP2-53096

ST2/IL-33R Antibody - BSA Free

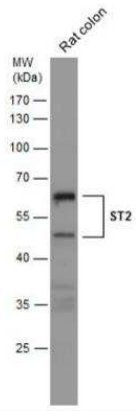
Product Information	
Unit Size	100 ul
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Thimerosal
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	0.1M Tris (pH 7), 0.1M Glycine, 10% Glycerol
Target Molecular Weight	63 kDa

Product Description	
Host	Rabbit
Gene ID	9173
Gene Symbol	IL1RL1
Species	Mouse, Rat
Immunogen	Recombinant protein encompassing a sequence within the center region of human ST2/IL-33R. The exact sequence is proprietary.

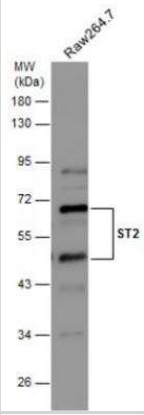
Product Application Details	
Applications	Western Blot, Immunohistochemistry
Recommended Dilutions	Western Blot 1:500 - 1:3000, Immunohistochemistry Validated for Immunohistochemistry from CiteAb

Images

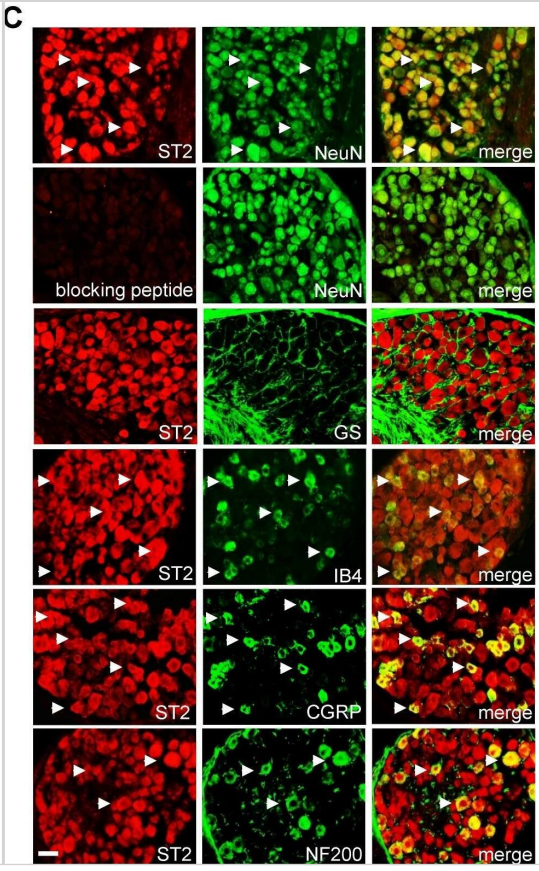
Western Blot: IL1RL1 Antibody [NBP2-53096] - Rat tissue extract (50 ug) was separated by 10% SDS-PAGE, and the membrane was blotted with ST2 antibody [N1C1] diluted at 1:500.



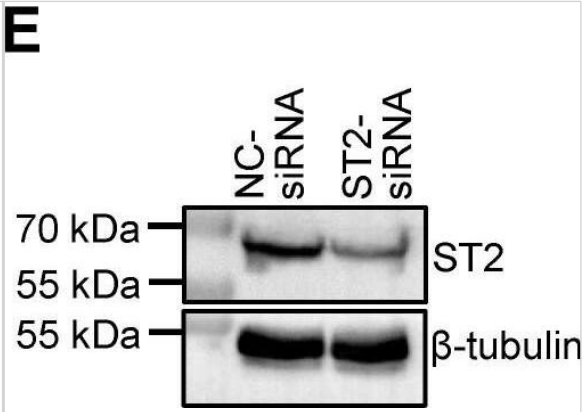
Western Blot: IL1RL1 Antibody [NBP2-53096] - Whole cell extract (30 ug) was separated by 10% SDS-PAGE, and the membrane was blotted with ST2 antibody [N1C1] diluted at 1:500.



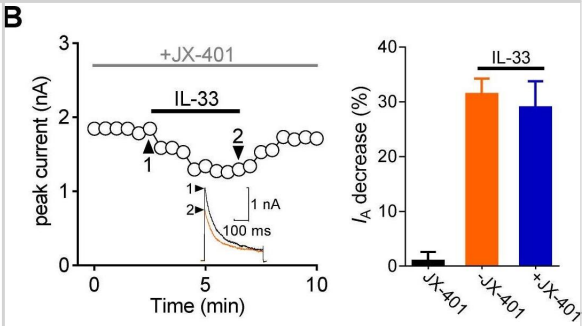
Immunocytochemistry/ Immunofluorescence: ST2/IL-33R Antibody [NBP2-53096] - ST2 mediates the IL-33 response on IA. A, Detection of ST2 transcripts in mouse DRGs. Neither the reverse-transcription negative control (without reverse transcriptase, -RT) nor nontemplate negative control (-H2O) showed a signal. B, Immunoblot analysis of ST2 protein abundance in mouse DRGs. Blots are representative of three independent experiments with β-tubulin serving as a loading control. C, Colabeling (white arrows) of ST2 & NeuN, GS, CGRP, IB4 & NF200 in mouse DRG sections. Pre-incubation of ST2 antibody with excessive ST2 blocking peptide served as the specificity control of ST2 antibody. Scale bar, 50 μm. D, Time course of IA changes (left) & bar graph (right) demonstrating that pretreating DRG neurons with an ST2 neutralizing antibody (ST2 Ab, 2 μg/mL) prevented the IL-33-induced IA decrease (n = 9 cells). The application of 2 μg/mL ST2 Ab alone did not affect IA (n = 7 cells). Arabic numerals indicate the points utilized for example current traces. **p < 0.01 vs. IL-33 without ST2 Ab, paired t test. E, Immunoblot analysis of ST2 protein abundance in the control siRNA (NC-siRNA) & ST2 siRNA-treated (ST2-siRNA) groups. Blots are representative of three independent experiments with β-tubulin serving as a loading control. **p < 0.01 vs. NC-siRNA, unpaired t test. F, Bar graph indicating that treatment with ST2-siRNA (n = 12 cells), but not NC-siRNA (n = 11 cells), abrogated the 50 ng/mL IL-33-induced IA decrease. *p < 0.05 vs. control + NC-siRNA, one-way ANOVA with a Bonferroni post hoc test. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/35265208), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



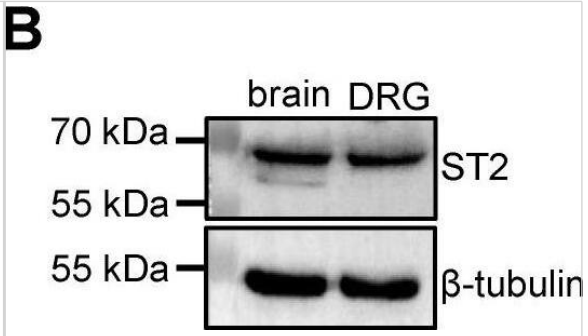
Western Blot: ST2/IL-33R Antibody [NBP2-53096] - ST2 mediates the IL-33 response on IA. A, Detection of ST2 transcripts in mouse DRGs. Neither the reverse-transcription negative control (without reverse transcriptase, -RT) nor nontemplate negative control (-H2O) showed a signal. B, Immunoblot analysis of ST2 protein abundance in mouse DRGs. Blots are representative of three independent experiments with β-tubulin serving as a loading control. C, Colabeling (white arrows) of ST2 & NeuN, GS, CGRP, IB4 & NF200 in mouse DRG sections. Pre-incubation of ST2 antibody with excessive ST2 blocking peptide served as the specificity control of ST2 antibody. Scale bar, 50 µm. D, Time course of IA changes (left) & bar graph (right) demonstrating that pretreating DRG neurons with an ST2 neutralizing antibody (ST2 Ab, 2 µg/mL) prevented the IL-33-induced IA decrease (n = 9 cells). The application of 2 µg/mL ST2 Ab alone did not affect IA (n = 7 cells). Arabic numerals indicate the points utilized for example current traces. **p < 0.01 vs. IL-33 without ST2 Ab, paired t test. E, Immunoblot analysis of ST2 protein abundance in the control siRNA (NC-siRNA) & ST2 siRNA-treated (ST2-siRNA) groups. Blots are representative of three independent experiments with β-tubulin serving as a loading control. **p < 0.01 vs. NC-siRNA, unpaired t test. F, Bar graph indicating that treatment with ST2-siRNA (n = 12 cells), but not NC-siRNA (n = 11 cells), abrogated the 50 ng/mL IL-33-induced IA decrease. *p < 0.05 vs. control + NC-siRNA, one-way ANOVA with a Bonferroni post hoc test. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/35265208), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



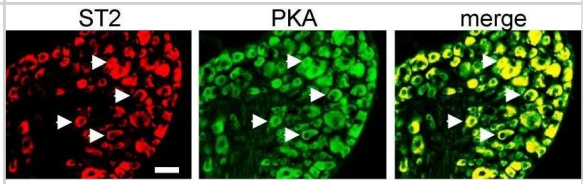
Western Blot: ST2/IL-33R Antibody [NBP2-53096] - p38β mediates the IL-33-induced IA decrease. A, immunoblot analysis of p38α & p38β protein abundance in DRGs. Mouse brains were used as positive controls. Blots are representative of three independent experiments with β-tubulin serving as a loading control. B, time course of IA changes (left) & bar graph (right) indicating the effect of 50 ng/mL IL-33 on IA in the presence of JX-401 (50 nM, n = 8 cells). The application of 50 nM JX-401 (n = 6 cells) alone had no significant effect on IA. Arabic numerals indicate the points utilized for the example current traces. C, immunoblot analysis showing that the protein expression level of p38β was significantly reduced in the p38β-siRNA-treated groups, while the expression of p38α was not affected. Blots are representative of three independent experiments with β-tubulin serving as a loading control. **p < 0.01 vs. NC-siRNA, unpaired t test. D, example traces (left) & bar graph (right) demonstrating the effects of 50 ng/mL IL-33 on IA in cells treated with control siRNA (NC-siRNA, n = 9 cells) or p38β-siRNA (n = 11 cells). **p < 0.01 vs. control + NC-siRNA group, one-way ANOVA with a Bonferroni post hoc test. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/35265208), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: ST2/IL-33R Antibody [NBP2-53096] - ST2 mediates the IL-33 response on IA. A, Detection of ST2 transcripts in mouse DRGs. Neither the reverse-transcription negative control (without reverse transcriptase, -RT) nor nontemplate negative control (-H2O) showed a signal. B, Immunoblot analysis of ST2 protein abundance in mouse DRGs. Blots are representative of three independent experiments with β-tubulin serving as a loading control. C, Colabeling (white arrows) of ST2 & NeuN, GS, CGRP, IB4 & NF200 in mouse DRG sections. Pre-incubation of ST2 antibody with excessive ST2 blocking peptide served as the specificity control of ST2 antibody. Scale bar, 50 µm. D, Time course of IA changes (left) & bar graph (right) demonstrating that pretreating DRG neurons with an ST2 neutralizing antibody (ST2 Ab, 2 µg/mL) prevented the IL-33-induced IA decrease (n = 9 cells). The application of 2 µg/mL ST2 Ab alone did not affect IA (n = 7 cells). Arabic numerals indicate the points utilized for example current traces. **p < 0.01 vs. IL-33 without ST2 Ab, paired t test. E, Immunoblot analysis of ST2 protein abundance in the control siRNA (NC-siRNA) & ST2 siRNA-treated (ST2-siRNA) groups. Blots are representative of three independent experiments with β-tubulin serving as a loading control. **p < 0.01 vs. NC-siRNA, unpaired t test. F, Bar graph indicating that treatment with ST2-siRNA (n = 12 cells), but not NC-siRNA (n = 11 cells), abrogated the 50 ng/mL IL-33-induced IA decrease. *p < 0.05 vs. control + NC-siRNA, one-way ANOVA with a Bonferroni post hoc test. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/35265208), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Immunocytochemistry/ Immunofluorescence: ST2/IL-33R Antibody [NBP2-53096] - The IL-33-induced IA decrease requires Syk. A, effects of 50 ng/mL IL-33 on protein abundance of phospho-JAK2 (p-JAK2)/total JAK2 (t-JAK2). Blots are representative of three independent experiments w/ β-tubulin serving as a loading control. B, colabeling (white arrows) of ST2 & JAK2 & Syk in mouse DRG sections. Scale bar, 50 µm. C, time course of IA changes (left) & bar graph (right) showing that pretreatment of DRG neurons w/ AG490 (10 µM) did not affect IL-33 -induced IA response (n = 8 cells). Application of 10 µM AG490 alone did not affect IA (n = 7 cells). Arabic numerals indicate points utilized for example current traces. D, effects of 50 ng/mL IL-33 on p-Syk protein abundance in presence/absence of ST2 neutralizing antibody (ST2 Ab, 2 µg/mL) in DRG cells. Blots are representative of three independent experiments w/ β-tubulin serving as a loading control. **p < 0.01 vs. control, unpaired t test. E-G, time course of IA changes showing that pretreating DRG neurons w/ R406/GS9973, but not KT-5720, prevented IL-33-induced IA response. Arabic numerals indicate points utilized for example current traces. H, bar graph showing effect of 50 ng/mL IL-33 on IA in cells pretreated w/ R406 (1 µM, n = 11 cells), GS9973 (10 µM, n = 8 cells), & KT-5720 (1 µM, n = 9 cells). Application of 1 µM R406 (n = 7 cells), 10 µM GS9973 (n = 6 cells)/1 µM KT-5720 (n = 7 cells) alone had no significant effect on IA. **p < 0.01 vs. control, paired t test. I, colabeling (white arrows) of ST2 & PKA in mouse DRG sections. Scale bar, 50 µm. J, bar graph demonstrating effect of 20 µM forskolin on IA in presence (n = 7 cells)/absence (n = 5 cells) of KT-5720 (1 µM). ***p < 0.001 vs. forskolin w/out KT-5720, paired t test. Image collected & cropped by CiteAb from following publication (https://pubmed.ncbi.nlm.nih.gov/35265208), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Zengliang He, Yan Song, Yongxiang Yi, Fengzhuo Qiu, Junhua Wang, Junwei Li, Qingwen Jin, Pradeep Kumar Sacitharan Blockade of IL□33 signalling attenuates osteoarthritis Clinical & Translational Immunology 2020-10-23 [PMID: 33133598]

Wang Y, Wang X, Qi R et al. Interleukin 33-mediated inhibition of A-type K+ channels induces sensory neuronal hyperexcitability and nociceptive behaviors in mice Theranostics 2022-02-14 [PMID: 35265208] (WB, Mouse)

Zhou J, Zhuang T, Ma P et al. MicroRNA-547-5p-mediated interleukin-33/suppressor of tumorigenicity 2 signaling underlies the genesis and maintenance of neuropathic pain and is targeted by the therapy with bone marrow stromal cells Mol Pain 2020-06-10 [PMID: 32513089] (WB, Rat)

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Products Related to NBP2-53096

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP2-24706PEP	ST2/IL-33R Antibody Blocking Peptide

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