Product Datasheet

EGR2 Antibody - BSA Free
NB110-59723

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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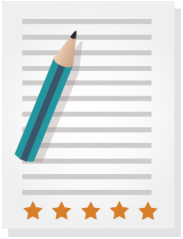
Updated 9/9/2025 v.20.1



NB110-59723

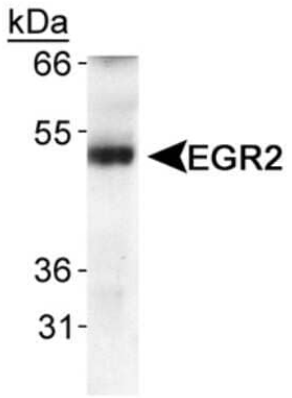
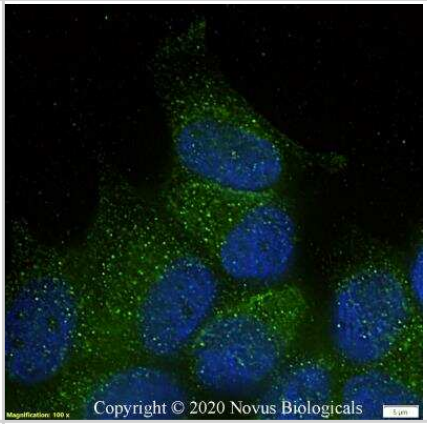
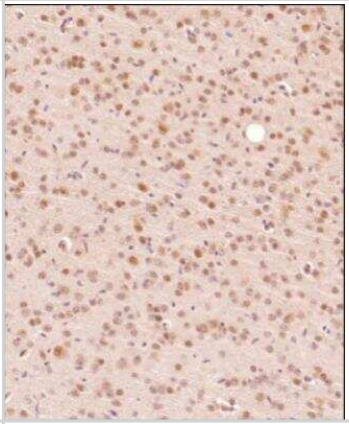
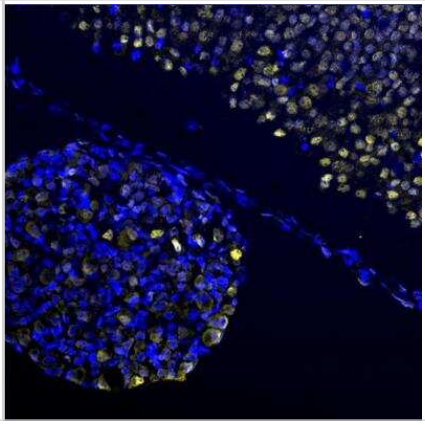
EGR2 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.05% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	50 kDa

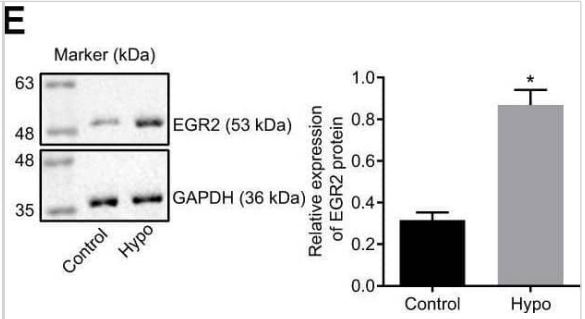
Product Description	
Description	Novus Biologicals Rabbit EGR2 Antibody - BSA Free (NB110-59723) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-EGR2 Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	1959
Gene Symbol	EGR2
Species	Human, Mouse, Porcine
Reactivity Notes	Immunogen displays the following percentage of sequence identity for non-tested species: mouse (86%), rat (86%), chicken (86%) and Xenopus (86%) proteins.
Immunogen	A synthetic peptide made to a portion of human EGR2 (within residues 200-300). [Swiss-Prot# P11161]

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 2 ug/ml, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1-5 ug/ml, Immunohistochemistry-Paraffin 1:200
Application Notes	This EGR2 antibody is useful for ICC and Western blot, where a band is seen at ~50 kDa. There is also a strong non-specific band at ~75 kDa. In ICC/IF nuclear staining was observed in Hela cells.

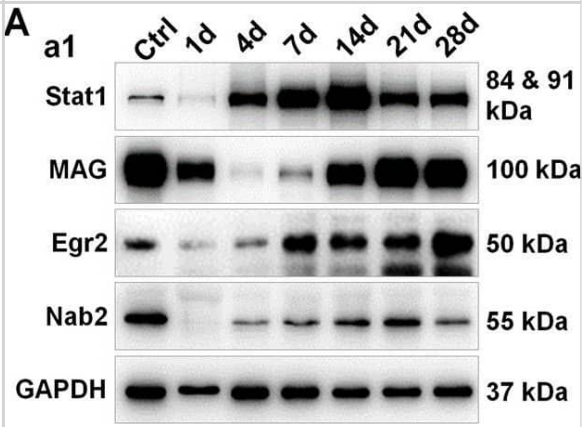
Images

Western Blot: EGR2 Antibody [NB110-59723] - Detection of EGR2 in human fetal lung tissue using NB110-59723.	
Immunocytochemistry/Immunofluorescence: EGR2 Antibody [NB110-59723] - MCF7 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-EGR2 Antibody NB110-59723 at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.	
Immunohistochemistry-Paraffin: EGR2 Antibody [NB110-59723] - Analysis of a FFPE tissue section of mouse brain using 1:200 dilution of EGR2 antibody. The staining was developed using HRP labeled anti-rabbit secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin.	
Immunocytochemistry/Immunofluorescence: EGR2 Antibody [NB110-59723] - EGR2 staining on E13.5 dorsal root ganglion and neural tube.	

Overexpression of miR-10a-5p decreased cardiomyocyte apoptosis through inhibiting EGR2. (A) The target genes of miR-10a-5p predicted using Starbase, miRWalk, and RAID databases and the up-regulated genes in MI-related dataset GSE23294 and the potential binding sites of miR-10a-5p on EGR2. (B) The luciferase activity measured by dual-luciferase reporter gene assay. (C) Expression of EGR2 in myocardial tissues normalized to GAPDH determined by RT-qPCR (n = 10). (D) The expression pattern of EGR2 in hypoxic cardiomyocytes normalized to GAPDH determined by RT-qPCR. (E) The expression pattern of EGR2 in cardiomyocytes normalized to GAPDH determined by Western blot analysis. (F), Apoptosis of cardiomyocytes after EGR2 silencing determined by flow cytometry. (G) The expression patterns of EGR2, cleaved-caspase-3, Bax and Bcl-2 in cardiomyocytes after EGR2 silencing normalized to GAPDH determined by Western blot analysis. (H) The caspase-3 activity in hypoxic cardiomyocytes after EGR2 silencing. (I) The ATP content in hypoxic cardiomyocytes after EGR2 silencing. (J) The expression pattern of EGR2 in the hypoxic cardiomyocytes after alteration of EGR2 and/or miR-10a-5p normalized to GAPDH determined by RT-qPCR. (K) The caspase-3 activity in hypoxic cardiomyocytes after alteration of EGR2 and/or miR-10a-5p determined by RT-qPCR. (L) The ATP content in hypoxic cardiomyocytes after alteration of EGR2 and/or miR-10a-5p. * $p < 0.05$. The above data were all measurement data, and expressed as mean +/- standard deviation. The unpaired t test was adopted for comparison between two groups. One-way ANOVA was adopted for comparison among multiple groups with Tukey's post hoc test. All data was generated from 3 independent experiments respectively. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/33819189), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Expression changes and cellular localization of Stat1 after nerve injury. A (a1) Western blots showing the expression change of Stat1, MAG, Nab2 and Egr2 in nerve injury segment at the indicated time points following a nerve crush, with uninjured nerve used as the control (Ctrl). GAPDH served as the loading control. (a2–6) Histogram quantitatively compare the expression changes of Stat1, MAG, Nab2, and Egr2. ###$p < 0.001$, one-way ANOVA, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$ vs control, n = 3 ~ 4 per group. B Immunofluorescence staining of S100β (a marker of SCs, red) and Stat1 (green) in injured sciatic nerve showing cellular localization of Stat1: on day 1 of injury, co-localization of Stat1 and S100β was almost absent; on day 4 of injury, there was a small amount of Stat1 and S100β co-localization; and from day 7 to day 28 of injury, Stat1 was mainly localized in SCs. Scale bars, 100 μm Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37365519), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Cao X, Ma Q, Wang B et al. Silencing long non-coding RNA MIAT ameliorates myocardial dysfunction induced by myocardial infarction via MIAT/miR-10a-5p/EGR2 axis Aging (Albany NY) 2021-04-30 [PMID: 33819189]

Xu J, Zhang B, Cai J et al. The transcription factor Stat-1 is essential for Schwann cell differentiation, myelination and myelin sheath regeneration Molecular medicine (Cambridge, Mass.) 2023-06-26 [PMID: 37365519] (WB, Rat)

Details:
1:500 dilution

Ojeda-Juarez D, Lawrence J, Soldau K et al. Prions induce an early Arc response and a subsequent reduction in mGluR5 in the hippocampus Neurobiology of disease 2022-07-26 [PMID: 35905927] (WB, Mouse)

Details:
Dilutions: 1:1000

Procedures

Western Blot protocol for EGR2 Antibody (NB110-59723)
EGR2 Antibody:
Western Blot Protocol
1. Perform SDS-PAGE (4-12%) on samples to be analyzed, loading 40 ug of total protein of human fetal lung 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% non-fat dry milk + 1% BSA in TBS, 1 hour at room temperature.
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 rabbit anti-EGR2 primary antibody (NB 110-59723) in blocking buffer and incubate 2 hours 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 rabbit-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 diultion buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

Immunocytochemistry/Immunofluorescence protocol for EGR2 Antibody (NB110-59723)
EGR2 Antibody:
Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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Products Related to NB110-59723

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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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