

Nrl (N-19): sc-10971

BACKGROUND

Nrl (neural retina leucine zipper) is a member of the Maf family of transcription factors, which characteristically contain a highly conserved basic leucine zipper (bZIP)-DNA binding motif. Both Nrl and c-Maf preferentially bind to T-MARE sites and are implicated in a wide variety of developmental and physiologic roles. The Maf-Nrl subfamily regulates the expression of cell type-specific genes in tissues of the hematopoietic system, cerebellum and developing hindbrain. Maf and Nrl proteins bind an extended AP-1-like sequence and can form heterodimers with Fos and Jun transcription factors. In retinal cells and photoreceptor cells, Nrl promotes the expression of rhodopsin through binding to the Nrl response element present in the rhodopsin promoter. Nrl is expressed throughout the developing central and peripheral nervous system during neuronal differentiation, and its expression is restricted to neocortex, brainstem and retinal neurons during adulthood.

REFERENCES

1. Swaroop, A., et al. 1992. A conserved retina-specific gene encodes a basic motif/leucine zipper domain. *Proc. Natl. Acad. Sci. USA* 89: 266-270.
2. Andrews, N.C., et al. 1993. The ubiquitous subunit of erythroid transcription factor NF-E2 is a small basic-leucine zipper protein related to the v-Maf oncogene. *Proc. Natl. Acad. Sci. USA* 90: 11488-11492.
3. Kerppola, T.K., et al. 1994. Maf and Nrl can bind to AP-1 sites and form heterodimers with Fos and Jun. *Oncogene* 9: 675-684.
4. Kerppola, T.K., et al. 1994. A conserved region adjacent to the basic domain is required for recognition of an extended DNA binding site by Maf/Nrl family proteins. *Oncogene* 9: 3149-3158.
5. Kurschner, C., et al. 1995. The Maf proto-oncogene stimulates transcription from multiple sites in a promoter that directs Purkinje neuron-specific gene expression. *Mol. Cell. Biol.* 15: 246-254.

CHROMOSOMAL LOCATION

Genetic locus: NRL (human) mapping to 14q11.2; Nrl (mouse) mapping to 14 C3.

SOURCE

Nrl (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Nrl of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10971 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-10971 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Nrl (N-19) is recommended for detection of Nrl of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Nrl (N-19) is also recommended for detection of Nrl in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Nrl siRNA (h): sc-38109, Nrl siRNA (m): sc-38110, Nrl shRNA Plasmid (h): sc-38109-SH, Nrl shRNA Plasmid (m): sc-38110-SH, Nrl shRNA (h) Lentiviral Particles: sc-38109-V and Nrl shRNA (m) Lentiviral Particles: sc-38110-V.

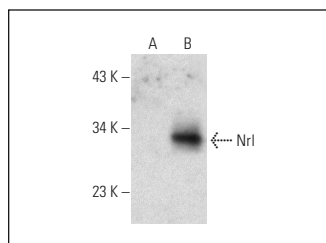
Nrl (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Nrl: 26 kDa.

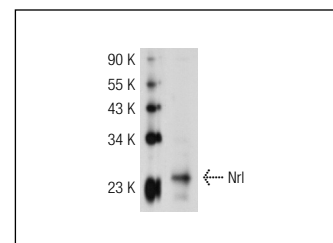
Molecular Weight (observed) of Nrl: 26/29-35 kDa.

Positive Controls: Nrl (h2): 293T Lysate: sc-113074, rat eye extract: sc-364805 or mouse eye extract: sc-364241.

DATA



Nrl (N-19): sc-10971. Western blot analysis of Nrl expression in non-transfected: sc-117752 (A) and human Nrl transfected: sc-113074 (B) 293T whole cell lysates.



Nrl (N-19): sc-10971. Western blot analysis of mouse Nrl expression in mouse eye tissue extract.

SELECT PRODUCT CITATIONS

1. Kataoka, K., et al. 2002. MafA is a glucose-regulated and pancreatic β-cell-specific transcriptional activator for the Insulin gene. *J. Biol. Chem.* 277: 49903-49910.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
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Try **Nrl (F-2): sc-374277** or **Nrl (A-6): sc-398046**, our highly recommended monoclonal alternatives to Nrl (N-19).