

# NELF-E (H-140): sc-32912

## BACKGROUND

NELF-E, for negative elongation factor E, is a putative RNA binding protein. NELF-E is one of the five components of the multisubunit NELF complex that cooperates with DSIF to repress RNA polymerase II elongation. Control of transcription elongation requires a complex interplay between positive transcription elongation factor b (P-TEFb) and negative transcription elongation factors, DSIF and NELF. DSIF and NELF, act as negative transcription elongation factors by increasing the time the polymerase spends at pause sites. DSIF/NELF inhibition of transcription is prevented by P-TEFb in cooperation with FACT. NELF-E is also known as RD and RDBP (RD RNA-binding protein). RD, the acronym of the most common dipeptide repeat describes the single letter symbols for arginine (R) and aspartic acid (D), respectively. NELF-E has a functional RNA-binding domain, whose mutations impair transcription repression without affecting known protein-protein interactions. The human NELF-E gene maps to chromosome 6p21.33 and encodes a 371 amino acid protein.

## CHROMOSOMAL LOCATION

Genetic locus: RDBP (human) mapping to 6p21.33; Rdbp (mouse) mapping to 17 B1.

## SOURCE

NELF-E (H-140) is a rabbit polyclonal antibody raised against amino acids 241-380 mapping at the C-terminus of NELF-E 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.

## STORAGE

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

## APPLICATIONS

NELF-E (H-140) is recommended for detection of NELF-E 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NELF-E (H-140) is also recommended for detection of NELF-E in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NELF-E siRNA (h): sc-38093, NELF-E siRNA (m): sc-38094, NELF-E shRNA Plasmid (h): sc-38093-SH, NELF-E shRNA Plasmid (m): sc-38094-SH, NELF-E shRNA (h) Lentiviral Particles: sc-38093-V and NELF-E shRNA (m) Lentiviral Particles: sc-38094-V.

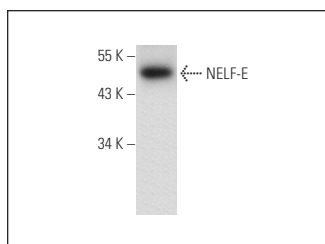
Molecular Weight of NELF-E: 43 kDa.

Positive Controls: human kidney extract: sc-363764.

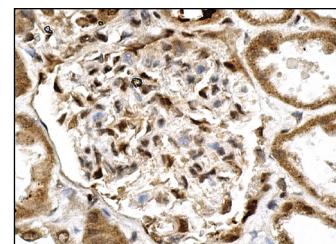
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



NELF-E (H-140): sc-32912. Western blot analysis of NELF-E expression in 293T whole cell lysate.



NELF-E (H-140): sc-32912. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing nuclear and cytoplasmic staining of cells in glomeruli and tubules.

## SELECT PRODUCT CITATIONS

- Fujita, T., et al. 2009. Negative elongation factor NELF controls transcription of immediate early genes in a stimulus-specific manner. *Exp. Cell Res.* 315: 274-284.
- Fujita, T., et al. 2010. Transcription elongation factors are involved in programming hormone production in pituitary neuroendocrine GH4C1 cells. *Mol. Cell. Endocrinol.* 319: 63-70.
- Wang, W., et al. 2013. Mediator MED23 regulates basal transcription *in vivo* via an interaction with P-TEFb. *Transcription* 4: 39-51.
- Londhe, P. and Davie, J.K. 2013. Interferon-γ resets muscle cell fate by stimulating the sequential recruitment of JARID2 and PRC2 to promoters to repress myogenesis. *Sci. Signal.* 6: ra107.

## RESEARCH USE

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

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Try **NELF-E (F-9): sc-377052**, our highly recommended monoclonal alternative to NELF-E (H-140).