

# NELF-A (A-20): sc-23599

## BACKGROUND

NELF-A, for negative elongation factor A, is a protein factor required for DRB-sensitive transcription. NELF-A is one of the five components of the 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-A, also known as WHSC2 (Wolf-Hirschhorn syndrome candidate 2), has a molecular mass of 57 kDa. Wolf-Hirschhorn syndrome is a multiple malformation syndrome characterized by mental and developmental defects resulting from a hemizygous deletion of the distal short arm of chromosome 4 (4p16.3). The human NELF-A gene maps to chromosome 4p16.3 and encodes a 528 amino acid protein that is expressed in endothelial cells.

## CHROMOSOMAL LOCATION

Genetic locus: WHSC2 (human) mapping to 4p16.3; Whsc2 (mouse) mapping to 5 B2.

## SOURCE

NELF-A (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of NELF-A 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.

Blocking peptide available for competition studies, sc-23599 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NELF-A (A-20) is recommended for detection of NELF-A 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).

NELF-A (A-20) is also recommended for detection of NELF-A in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for NELF-A siRNA (h): sc-38095, NELF-A siRNA (m): sc-38096, NELF-A shRNA Plasmid (h): sc-38095-SH, NELF-A shRNA Plasmid (m): sc-38096-SH, NELF-A shRNA (h) Lentiviral Particles: sc-38095-V and NELF-A shRNA (m) Lentiviral Particles: sc-38096-V.

Molecular Weight of NELF-A: 66 kDa.

Positive Controls: DU 145 nuclear extract: sc-24960 or Jurkat nuclear extract: sc-2132.

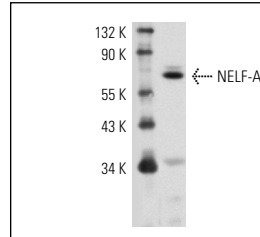
## RESEARCH USE

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

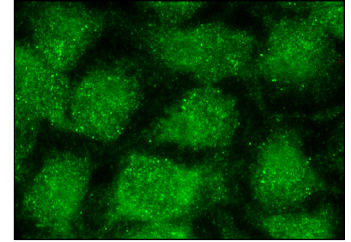
## STORAGE

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

## DATA



NELF-A (A-20): sc-23599. Western blot analysis of NELF-A expression in DU 145 nuclear extract.



NELF-A (A-20): sc-23599. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

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- Glover-Cutter, K., et al. 2009. TFIIH-associated Cdk7 kinase functions in phosphorylation of C-terminal domain Ser7 residues, promoter-proximal pausing, and termination by RNA polymerase II. *Mol. Cell. Biol.* 29: 5455-5464.
- Fujita, T., et al. 2009. The transcription elongation factors NELF, DSIF and P-TEFb control constitutive transcription in a gene-specific manner. *FEBS Lett.* 583: 2893-2898.
- 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.
- Valin, A., et al. 2013. Transcription factor Sp3 represses expression of p21CIP1 via inhibition of productive elongation by RNA polymerase II. *Mol. Cell. Biol.* 33: 1582-1593.
- Salem, T., et al. 2013. Chromatin loop organization of the junb locus in mouse dendritic cells. *Nucleic Acids Res.* 41: 8908-8925.


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Try **NELF-A (G-11): sc-365004** or **NELF-A (A-10): sc-271960**, our highly recommended monoclonal alternatives to NELF-A (A-20).