

NEIL1 (S-17): sc-47611

BACKGROUND

NEIL1, NEIL2 and NEIL3, also known as endonuclease VIII-like 1, 2 and 3 or DNA-(apurinic or apyrimidinic site) lyase NEIL 1, 2 and 3, are nuclear proteins involved in the repair of DNA damaged by oxidation. The NEIL proteins belong to the FPG family of proteins. They act as DNA glycosylases that can recognize and remove damaged bases, leaving an abasic site. NEIL3, however, lacks the proline residue at the N-terminus which acts as the active site residue found in NEIL1 and NEIL2. NEIL1 is a ubiquitously expressed protein that is up-regulated during S-phase. NEIL2 is expressed primarily in testis, heart, skeletal muscle, placenta, brain, kidney and liver while NEIL3 is detected primarily in thymus and testis.

CHROMOSOMAL LOCATION

Genetic locus: NEIL1 (human) mapping to 15q24.2; Neil1 (mouse) mapping to 9 B.

SOURCE

NEIL1 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NEIL1 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-47611 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-47611 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

NEIL1 (S-17) is recommended for detection of NEIL1 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).

NEIL1 (S-17) is also recommended for detection of NEIL1 in additional species, including equine and porcine.

Suitable for use as control antibody for NEIL1 siRNA (h): sc-61166, NEIL1 siRNA (m): sc-61167, NEIL1 shRNA Plasmid (h): sc-61166-SH, NEIL1 shRNA Plasmid (m): sc-61167-SH, NEIL1 shRNA (h) Lentiviral Particles: sc-61166-V and NEIL1 shRNA (m) Lentiviral Particles: sc-61167-V.

NEIL1 (S-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

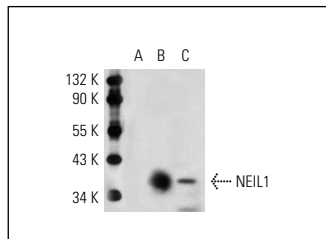
Molecular Weight of NEIL1: 47 kDa.

Positive Controls: NEIL1 (h): 293 Lysate: sc-111234 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NEIL1 (S-17): sc-47611. Western blot analysis of NEIL1 expression in non-transfected 293: sc-110760 (A), human NEIL1 transfected 293: sc-111234 (B) and HeLa (C) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **NEIL1 (D-1): sc-271164** or **NEIL1 (B-1): sc-271167**, our highly recommended monoclonal alternatives to NEIL1 (S-17).