

# DinB (H-180): sc-67349

## BACKGROUND

Problems in DNA replication may lead to breaks in the replication fork, and recombinational reactions occur to restore the integrity of the fork via strand-invasion of the broken chromosome with its homologous strand. If this happens within repeated DNA sequences, genetic rearrangements may be produced. The bacterial UmuC/DinB family consists of bypass polymerases that are responsible for translesion DNA synthesis. DinB, also referred to as DNA polymerase IV or DNA polymerase  $\kappa$ , is an SOS-inducible, error-prone DNA polymerase that plays a role in DNA damage-induced mutagenesis by preferentially making frameshift mutations. DinB is uniquely and highly expressed in the adrenal cortex and testis, as well as in a variety of other tissues. p53 regulates DinB and exposure to various DNA-damaging agents causes an upregulation of DinB.

## CHROMOSOMAL LOCATION

Genetic locus: POLK (human) mapping to 5q13.3; Polk (mouse) mapping to 13 D1.

## SOURCE

DinB (H-180) is a rabbit polyclonal antibody raised against amino acids 131-310 mapping near the N-terminus of DinB of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-67349 X, 200  $\mu$ g/0.1 ml.

## STORAGE

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

## APPLICATIONS

DinB (H-180) is recommended for detection of all DinB isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

DinB (H-180) is also recommended for detection of all DinB isoforms in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DinB siRNA (h): sc-60537, DinB siRNA (m): sc-60538, DinB shRNA Plasmid (h): sc-60537-SH, DinB shRNA Plasmid (m): sc-60538-SH, DinB shRNA (h) Lentiviral Particles: sc-60537-V and DinB shRNA (m) Lentiviral Particles: sc-60538-V.

DinB (H-180) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

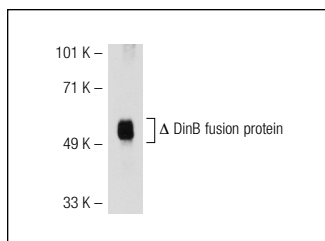
Molecular Weight of DinB: 99 kDa.

Positive Controls: F9 cell lysate: sc-2245, HeLa nuclear extract: sc-2120 or PC-12 cell lysate: sc-2250.

## 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.

## DATA



DinB (H-180): sc-67349. Western blot analysis of truncated human recombinant DinB fusion protein.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **DinB (A-9): sc-166667**, our highly recommended monoclonal alternative to DinB (H-180).