

DinB (D-20): sc-51064

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 κ , 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.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: POLK (human) mapping to 5q13.

SOURCE

DinB (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DinB of human origin.

PRODUCT

Each vial contains 200 μ g 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-51064 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-51064 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DinB (D-20) is recommended for detection of all DinB isoforms of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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

DinB (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of DinB: 99 kDa.

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) 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.

RESEARCH USE

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



Try **DinB (A-9): sc-166667**, our highly recommended monoclonal alternative to DinB (D-20).