

ALKBH8 (G-13): sc-132617

BACKGROUND

ALKBH8 (alkylated DNA repair protein AlkB homolog 8) is a 664 amino acid protein that is encoded by a gene located on chromosome 11. ALKBH8 contains one RRM (RNA recognition motif) domain and belongs to the AlkB family of proteins. ALKBH8 is one of many homologs of the *Escherichia coli* protein AlkB. AlkB functions to protect DNA and RNA against damage from environmental methylating compounds by directly reversing 1-methyladenine (1-meA) and 3-methylcytosine (3-meC) cytotoxic alkylation lesions in DNA and RNA. The enzyme acts by oxidative demethylation, utilizing ferrous iron and α -ketoglutarate as cofactors, 2-oxoglutarate as a co-substrate and molecular oxygen as the oxidizing agent. Three isoforms exist for ALKBH8 due to alternative splicing of the gene.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Alkbh8 (mouse) mapping to 9 A1; Alkbh8 (rat) mapping to 7q11.

SOURCE

ALKBH8 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ALKBH8 of mouse origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132617 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ALKBH8 (G-13) is recommended for detection of ALKBH8 isoforms 1-3 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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); non cross-reactive with other ALKBH family members.

Suitable for use as control antibody for ALKBH8 siRNA (m): sc-141025, ALKBH8 shRNA Plasmid (m): sc-141025-SH and ALKBH8 shRNA (m) Lentiviral Particles: sc-141025-V.

Molecular Weight of ALKBH8 isoform 1: 75 kDa.

Molecular Weight of ALKBH8 isoform 2: 27 kDa.

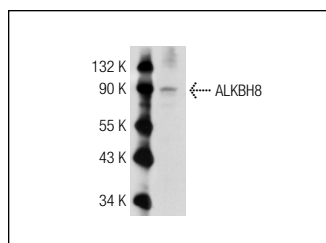
Molecular Weight of ALKBH8 isoform 3: 26 kDa.

Positive Controls: c4 whole cell lysate.

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



ALKBH8 (G-13): sc-132617. Western blot analysis of ALKBH8 expression in c4 whole cell lysate.

RESEARCH USE

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