

# ALKBH2 (V-13): sc-161335

## BACKGROUND

ALKBH2 (alkB, alkylation repair homolog 2), also known as ABH2, is a 261 amino acid protein that localizes to the nucleus and belongs to the ALKB family. Expressed in heart, colon, liver, testis, ovary, prostate and small intestine, ALKBH2 uses iron as a cofactor and functions as a dioxygenase that catalyzes the repair of alkylated DNA and RNA containing 1-methyladenine and 3-methylcytosine. ALKBH2 is functionally activated by ascorbate and requires oxygen and  $\alpha$ -ketoglutarate for enzymatic activity. The gene encoding ALKBH2 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

## CHROMOSOMAL LOCATION

Genetic locus: ALKBH2 (human) mapping to 12q24.11; Alkbh2 (mouse) mapping to 5 F.

## SOURCE

ALKBH2 (V-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ALKBH2 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.

Blocking peptide available for competition studies, sc-161335 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

ALKBH2 (V-13) is recommended for detection of ALKBH2 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); non cross-reactive with other ALKBH family members.

ALKBH2 (V-13) is also recommended for detection of ALKBH2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ALKBH2 siRNA (h): sc-96063, ALKBH2 siRNA (m): sc-141019, ALKBH2 shRNA Plasmid (h): sc-96063-SH, ALKBH2 shRNA Plasmid (m): sc-141019-SH, ALKBH2 shRNA (h) Lentiviral Particles: sc-96063-V and ALKBH2 shRNA (m) Lentiviral Particles: sc-141019-V.

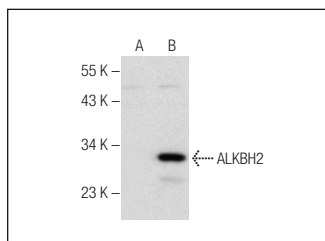
Molecular Weight of ALKBH2: 29 kDa.

Positive Controls: ALKBH2 (h): 293T Lysate: sc-111420.

## 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



ALKBH2 (V-13): sc-161335. Western blot analysis of ALKBH2 expression in non-transfected: sc-117752 (A) and human ALKBH2 transfected: sc-111420 (B) 293T whole cell lysates.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **ALKBH2 (C-9): sc-515789**, our highly recommended monoclonal alternative to ALKBH2 (V-13).