

AOF1 (K-17): sc-103387

BACKGROUND

AOF1 (amine-oxidase flavin-containing domain 1), whose alternative names include KDM1B (lysine (K)-specific demethylase 1B) or LSD2 (lysine-specific histone demethylase 2), is an 823 amino acid nuclear protein belonging to the flavin monoamine oxidase family. As a histone demethylase, AOF1 specifically demethylates Lys4 of histone H3, a marker for epigenetic transcriptional activation, by interacting with a long stretch of the H3 N-terminal tail of mono- and dimethylated Lys4. Existing as three alternatively spliced isoforms, AOF1 is required for *de novo* DNA methylation of some imprinted genes in oocytes and contains a single SWIRM domain that is implicated in chromatin regulation. AOF1 contains one CW-type zinc finger and is encoded by a gene located on human chromosome 6p22.3.

CHROMOSOMAL LOCATION

Genetic locus: AOF1 (human) mapping to 6p22.3; Aof1 (mouse) mapping to 13 A5.

SOURCE

AOF1 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of AOF1 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.

Blocking peptide available for competition studies, sc-103387 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

AOF1 (K-17) is recommended for detection of AOF1 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).

AOF1 (K-17) is also recommended for detection of AOF1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AOF1 siRNA (h): sc-95467, AOF1 siRNA (m): sc-105073, AOF1 shRNA Plasmid (h): sc-95467-SH, AOF1 shRNA Plasmid (m): sc-105073-SH, AOF1 shRNA (h) Lentiviral Particles: sc-95467-V and AOF1 shRNA (m) Lentiviral Particles: sc-105073-V.

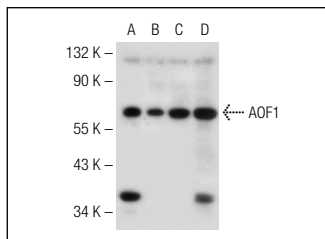
Molecular Weight of AOF1 isoforms: 92/66/19 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or Jurkat nuclear extract: sc-2132.

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



AOF1 (K-17): sc-103387. Western blot analysis of AOF1 expression in HeLa (A), NIH/3T3 (B), Jurkat (C) and K-562 (D) nuclear extracts.

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.



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Try **AOF1 (E-6): sc-515565** or **AOF1 (E-3): sc-515564**, our highly recommended monoclonal alternatives to AOF1 (K-17).