

ESET (S-14): sc-46112

BACKGROUND

ERG-associated protein with SET domain (ESET), also designated Histone H3-K9 methyltransferase 4 or SET domain bifurcated 1, is a nuclear protein belonging to the histone-lysine methyltransferase family and to the Suvar3-9 subfamily. It is a highly conserved protein of 150 amino acids that has been implicated in chromatin structure modulation. ESET is excluded from cell nucleoli and areas of condensed chromatin and can associate with the non-pericentromeric regions of chromatin. The gene encoding for this protein, SETDB1, maps to chromosome 1q21.3. ESET is a histone methyltransferase, methylating Lys-9 of histone H3 and mutations within the SETDB1 gene abolishes its methyltransferase activity. This methylation acts as a tag for epigenetic transcriptional repression by rounding up HP1 proteins to methylated histones. ESET is widely expressed with highest levels found in testis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SETDB1 (human) mapping to 1q21.3; Setdb1 (mouse) mapping to 3 F2.1.

SOURCE

ESET (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ESET of human origin.

RESEARCH USE

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

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-46112 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-46112 X, 200 µg/0.1 ml.

APPLICATIONS

ESET (S-14) is recommended for detection of ESET of mouse, rat and 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).

ESET (S-14) is also recommended for detection of ESET in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ESET siRNA (h): sc-45659, ESET siRNA (m): sc-45660, ESET shRNA Plasmid (h): sc-45659-SH, ESET shRNA Plasmid (m): sc-45660-SH, ESET shRNA (h) Lentiviral Particles: sc-45659-V and ESET shRNA (m) Lentiviral Particles: sc-45660-V.

ESET (S-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of ESET: 180 kDa.

Positive Controls: MCF7 nuclear extract: sc-2149, SW-13 cell lysate: sc-24778 or HeLa nuclear extract: sc-2120.

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.

STORAGE

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



Try **ESET (A-1): sc-166621** or **ESET (G-4): sc-271488**, our highly recommended monoclonal alternatives to ESET (S-14).