

# Set1A (N-17): sc-83475

## BACKGROUND

The SET domain containing proteins, Set1A and Set1B, are both widely expressed proteins sharing 39% amino acid sequence identity. Both proteins contain SET and post-SET domains at their C-termini and an RNA recognition domain at their N-termini. They associate separately with the Set1 histone methyltransferase complex (a complex that is analogous to the *S. cerevisiae* Set1/COMPASS complex) and function as the catalytic subunit, catalyzing H3-Lys 4 methyltransferase reactions. The Set1 complex also contains the non-catalytic subunits CGBP, ASH2L, WDR5, WDR82 and RBQ-3. Set1A, also known as SETD1A or KMT2F, localizes to a set of euchromatic nuclear speckles that does not overlap with the localization of Set1B (also referred to as SETD1B or KMT2G). This unique subnuclear localization suggests that Set1A and Set1B bind to a distinct set of target genes, thus implying a non-redundant function of Set1A and Set1B.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SETD1A (human) mapping to 16p11.2; Setd1a (mouse) mapping to 7 F3.

## SOURCE

Set1A (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Set1A 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-83475 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-83475 X, 200 µg/0.1 ml.

## APPLICATIONS

Set1A (N-17) is recommended for detection of Set1A 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); non cross-reactive with Set2.

Set1A (N-17) is also recommended for detection of Set1A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Set1A siRNA (h): sc-76484, Set1A siRNA (m): sc-76485, Set1A shRNA Plasmid (h): sc-76484-SH, Set1A shRNA Plasmid (m): sc-76485-SH, Set1A shRNA (h) Lentiviral Particles: sc-76484-V and Set1A shRNA (m) Lentiviral Particles: sc-76485-V.

Set1A (N-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Set1A: 186 kDa.

Molecular Weight of Set1 complex: 450 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.

## STORAGE

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

## RESEARCH USE

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



Try **Set1A (G-6): sc-515590**, our highly recommended monoclonal alternative to Set1A (N-17).