

# SATB2 (K-20): sc-79049

## BACKGROUND

SATB2 (special AT-rich sequence-binding protein 2) is a nuclear matrix protein that influences craniofacial formation mechanisms, such as jaw and palate development, and is part of a transcriptional network regulating skeletal development and osteoblast differentiation. Highly expressed in adult and fetal brain, SATB2 contains two CUT DNA-binding domains and one homeobox domain and is closely related to SATB1, a transcriptional repressor. SATB2 is thought to bind to matrix attachment regions (MARs) and regulate MAR-dependent transcription of various genes, including HoxA2 and ATF-4 (CREB-2), involved in skeletal development. Functioning as both a transcriptional activator and repressor, SATB2 can also act as a protein scaffold that can enhance the activity of other DNA-binding proteins. Defects in the gene encoding SATB2 are the cause of cleft palate manifested in conjunction with severe mental retardation.

## CHROMOSOMAL LOCATION

Genetic locus: SATB2 (human) mapping to 2q33.1; Satb2 (mouse) mapping to 1 C1.3.

## SOURCE

SATB2 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SATB2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-79049 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-79049 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SATB2 (K-20) is recommended for detection of SATB2 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). SATB2 (K-20) is also recommended for detection of SATB2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for SATB2 siRNA (h): sc-76456, SATB2 siRNA (m): sc-76457, SATB2 siRNA (r): sc-61891, SATB2 shRNA Plasmid (h): sc-76456-SH, SATB2 shRNA Plasmid (m): sc-76457-SH, SATB2 shRNA Plasmid (r): sc-61891-SH, SATB2 shRNA (h) Lentiviral Particles: sc-76456-V, SATB2 shRNA (m) Lentiviral Particles: sc-76457-V and SATB2 shRNA (r) Lentiviral Particles: sc-61891-V.

SATB2 (K-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

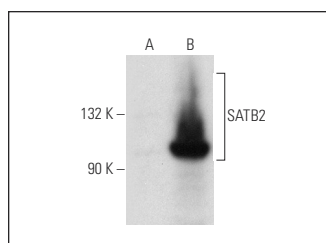
Molecular Weight of SATB2: 105 kDa.

Positive Controls: HT-1080 whole cell lysate: sc-364183 or SATB2 (h): 293T Lysate: sc-369978.

## 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



SATB2 (K-20): sc-79049. Western blot analysis of SATB2 expression in non-transfected: sc-117752 (A) and human SATB2 transfected: sc-369978 (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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **SATB2 (SATBA4B10): sc-81376**, our highly recommended monoclonal alternative to SATB2 (K-20).