

# RBP1 (T-19): sc-55749

## BACKGROUND

RB (retinoblastoma protein) is a potent transcriptional regulator that is directly involved with events such as entry into cell division and formation of heterochromatin. RBP1 (retinoblastoma-binding protein 1), also known as RBP-1, RBBP1 or ARID4A (AT-rich interactive domain-containing protein 4A), is a ubiquitously expressed nuclear protein that binds directly to the viral-binding domain of RB. RB recruits chromatin-modifying proteins, such as RBP1, that can bind to it and allow it to act as a transcriptional repressor of E2F target genes. Once bound to RB, RBP1 can also act as a bridging molecule to recruit histone deacetylases (HDACs), proteins that function as potent regulators of gene expression. Three isoforms of RBP1 exist due to alternative splicing events.

## REFERENCES

1. Lai, A., et al. 2001. RBP1 recruits the mSIN3-histone deacetylase complex to the pocket of retinoblastoma tumor suppressor family proteins found in limited discrete regions of the nucleus at growth arrest. *Mol. Cell. Biol.* 21: 2918-2932.
2. Chen, Y.F., et al. 2003. Retinoblastoma protein (pRB) was significantly phosphorylated through a Ras-to-MAPK pathway in mutant K-Ras stably transfected human adrenocortical cells. *DNA Cell Biol.* 22: 657-664.

## CHROMOSOMAL LOCATION

Genetic locus: ARID4A (human) mapping to 14q23.1.

## SOURCE

RBP1 (T-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RBP1 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-55749 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

RBP1 (T-19) is recommended for detection of RBP1 of 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).

RBP1 (T-19) is also recommended for detection of RBP1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for RBP1 siRNA (h): sc-62930, RBP1 shRNA Plasmid (h): sc-62930-SH and RBP1 shRNA (h) Lentiviral Particles: sc-62930-V.

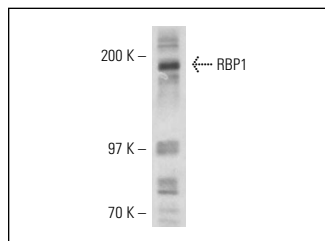
Molecular Weight of RBP1: 180 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357.

## 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



RBP1 (T-19): sc-55749. Western blot analysis of RBP1 expression in ARPE-19 whole cell lysate.

## 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 **RBP1 (112C4a): sc-81640**, our highly recommended monoclonal alternative to RBP1 (T-19).