

# RBP1 (112C4a): sc-81640

## 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

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## CHROMOSOMAL LOCATION

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

## SOURCE

RBP1 (112C4a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to the C-terminal region of RBP1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## APPLICATIONS

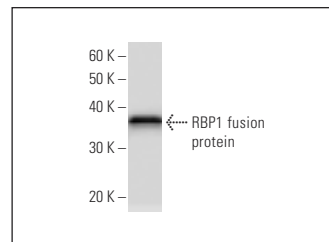
RBP1 (112C4a) is recommended for detection of RBP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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.

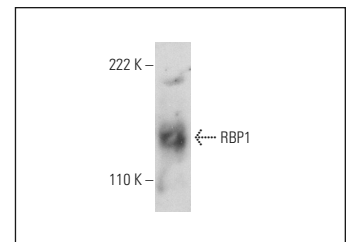
Molecular Weight of RBP1: 180 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357 or MCF7 nuclear extract: sc-2149.

## DATA



RBP1 (112C4a): sc-81640. Western Blot analysis of human recombinant RBP1 fusion protein.



RBP1 (112C4a): sc-81640. Western blot analysis of RBP1 expression in MCF7 nuclear extract.

## SELECT PRODUCT CITATIONS

- Hung, P.S., Chen, C.Y., Chen, W.T., Kuo, C.Y., Fang, W.L., Huang, K.H., Chiu, P.C. and Lo, S.S. 2017. miR-376c promotes carcinogenesis and serves as a plasma marker for gastric carcinoma. *PLoS ONE* 12: e0177346.
- Gao, L., Wang, Q., Ren, W., Zheng, J., Li, S., Dou, Z., Kong, X., Liang, X. and Zhi, K. 2020. The RBP1-CKAP4 axis activates oncogenic autophagy and promotes cancer progression in oral squamous cell carcinoma. *Cell Death Dis.* 11: 488.

## 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) for detailed protocols and support products.