

RAP80 (H-260): sc-98339

BACKGROUND

Receptor-associated protein 80 (RAP80), also known as ubiquitin interaction motif-containing protein 1 (UIMC1) or retinoid X receptor-interacting protein 110 (RXRIP110), is a 719 amino acid protein. Acting as a transcription repressor, RAP80 interacts with GCNF, thereby blocking GCNF interaction with the corepressor N-CoR. Localized to the nucleus, RAP80 is phosphorylated upon DNA damage. RAP80 contains two nuclear localization signals and one UIM (ubiquitin-interacting motif) repeat in the N-terminus, while the C-terminus contains two zinc fingers, a third nuclear localization signal and a potential PEST sequence. RAP80 is expressed as four isoforms produced by alternative splicing and is present in thymus, testis, heart and ovary.

REFERENCES

1. Yan, J., Yang, X.P., Kim, Y.S., Joo, J.H. and Jetten, A.M. 2007. RAP80 interacts with the SUMO-conjugating enzyme UBC9 and is a novel target for sumoylation. *Biochem. Biophys. Res. Commun.* 362: 132-138.
2. Yan, J., Kim, Y.S., Yang, X.P., Li, L.P., Liao, G., Xia, F. and Jetten, A.M. 2007. The ubiquitin-interacting motif containing protein RAP80 interacts with BRCA1 and functions in DNA damage repair response. *Cancer Res.* 67: 6647-6656.
3. Wang, B. and Elledge, S.J. 2007. UBC13/RNF8 ubiquitin ligases control foci formation of the RAP80/Abraxas/BRCA1/BRCC36 complex in response to DNA damage. *Proc. Natl. Acad. Sci. USA* 104: 20759-20763.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 609433. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Yan, J. and Jetten, A.M. 2008. RAP80 and RNF8, key players in the recruitment of repair proteins to DNA damage sites. *Cancer Lett.* 271: 179-190.
6. Yan, J., Yang, X.P., Kim, Y.S. and Jetten, A.M. 2008. RAP80 responds to DNA damage induced by both ionizing radiation and UV irradiation and is phosphorylated at Ser 205. *Cancer Res.* 68: 4269-4276.

CHROMOSOMAL LOCATION

Genetic locus: UIMC1 (human) mapping to 5q35.2; Uimc1 (mouse) mapping to 13 B2.

SOURCE

RAP80 (H-260) is a rabbit polyclonal antibody raised against amino acids 191-450 mapping within an internal region of RAP80 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.

STORAGE

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

APPLICATIONS

RAP80 (H-260) is recommended for detection of RAP80 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).

RAP80 (H-260) is also recommended for detection of RAP80 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RAP80 siRNA (h): sc-92007, RAP80 shRNA Plasmid (h): sc-92007-SH and RAP80 shRNA (h) Lentiviral Particles: sc-92007-V.

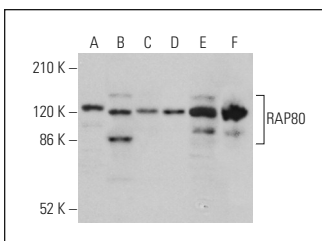
Molecular Weight of RAP80: 80 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, MCF7 whole cell lysate: sc-2206 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RAP80 (H-260): sc-98339. Western blot analysis of RAP80 expression in RAW 264.7 (A), Jurkat (B), MCF7 (C) and HeLa (D) whole cell lysates and MCF7 (E) and HeLa (F) nuclear extracts.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.