SANTA CRUZ BIOTECHNOLOGY, INC.

# PARC (C-20): sc-33260

## BACKGROUND

The p53 tumor suppressor gene is altered in over 50% of human cancers. The p53 binding proteins 53BP1 and 53BP2 (Bbp) are tumor suppressors that bind to the site-specific central DNA-binding domain of wildtype p53 in a conformationdependent manner. Severe DNA damage can cause phosphorylation of p53 at position Serine 46. This event triggers expression of p53AIP1 (apoptosis inducing protein), which contributes to subsequent events leading to programmed cell death. The protein PARC (p53-associated Parkin-like cytoplasmic protein) acts as a cytoplasmic anchor for p53 in unstressed cells, thereby regulating the localization and subsequent function of p53. The carboxy-terminus of the PARC protein contains a RING-IBR-RING domain, which suggests it retains ubiquitin ligase activity, but PARC fails to promote degradation of p53. The gene encoding human PARC maps to chromosome 6p21.1.

## REFERENCES


1. Iwabuchi, K., et al. 1994. Two cellular proteins that bind to wildtype but not mutant p53. Proc. Natl. Acad. Sci. USA 91: 6098-6102.
2. Iwabuchi, K., et al. 1998. Stimulation of p53-mediated transcriptional activation by the p53-binding proteins, 53BP1 and 53BP2. J. Biol. Chem. 273: 26061-26068.
3. Oda, K., et al. 2000. p53AIP1, a potential mediator of p53-dependent apoptosis, and its regulation by Ser 46-phosphorylated p53. Cell 102: 849-862.
4. Nikolaev, A.Y., et al. 2003. PARC: a cytoplasmic anchor for p53. Cell 112: 29-40.
5. Sluss, H.K., et al. 2003. Analysing p53 tumour suppressor functions in mice. Expert Opin. Ther. Targets 7: 89-99.
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## CHROMOSOMAL LOCATION

Genetic locus: PARC (human) mapping to 6p21.1; Parc (mouse) mapping to 17 C.

## SOURCE

PARC (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PARC of human origin.

## STORAGE

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

## 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-33260 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PARC (C-20) is recommended for detection of PARC 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).

PARC (C-20) is also recommended for detection of PARC in additional species, including equine.

Suitable for use as control antibody for PARC siRNA (h): sc-44715, PARC siRNA (m): sc-44716, PARC shRNA Plasmid (h): sc-44715-SH, PARC shRNA Plasmid (m): sc-44716-SH, PARC shRNA (h) Lentiviral Particles: sc-44715-V and PARC shRNA (m) Lentiviral Particles: sc-44716-V.

Molecular Weight of PARC: 270 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## 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.

## 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.