

# UNC45A (C-12): sc-165861

## BACKGROUND

UNC45A (UNC-45 homolog A), also known as SMAP1 (smooth muscle cell-associated protein 1) or GCUNC45, is a 944 amino acid protein that localizes to the perinuclear region of the cytoplasm and contains three TPR repeats. Expressed in spinal cord, bone marrow, peripheral blood leukocytes, trachea, stomach and adrenal gland, UNCA45A functions as a chaperone for HSP 90, effectively facilitating the association of HSP 90 with PR (progesterone receptor). Additionally, UNC45A is thought to be necessary for proper folding of myosin and is required for normal myotube formation during muscle cell development, thereby playing an important role in muscle formation. Overexpression of UNC45A is associated with rapid cell proliferation and motility, especially that observed in ovarian cancer, suggesting a role for UNC45A in tumorigenesis. Multiple isoforms of UNC45A exist due to alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: UNC45A (human) mapping to 15q26.1; Unc45a (mouse) mapping to 7 D3.

## SOURCE

UNC45A (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of UNC45A of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165861 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

UNC45A (C-12) is recommended for detection of UNC45A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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); non cross-reactive with UNC45B.

UNC45A (C-12) is also recommended for detection of UNC45A in additional species, including canine.

Suitable for use as control antibody for UNC45A siRNA (h): sc-90291, UNC45A siRNA (m): sc-154919, UNC45A shRNA Plasmid (h): sc-90291-SH, UNC45A shRNA Plasmid (m): sc-154919-SH, UNC45A shRNA (h) Lentiviral Particles: sc-90291-V and UNC45A shRNA (m) Lentiviral Particles: sc-154919-V.

Molecular Weight of UNC45A: 103 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

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



Try **UNC45A (AbS1): sc-101493** or **UNC45A (H-1): sc-390197**, our highly recommended monoclonal alternatives to UNC45A (C-12).