

# SMG6 (P-18)-R: sc-50984-R

## BACKGROUND

The eukaryotic nonsense-mediated mRNA decay (NMD) pathway is a post-transcriptional process that promotes rapid degradation of mRNAs containing premature stop codons (PTCs). In humans, NMD depends on RNA-dependent ATPase and 5' to 3' helicase UPF1, plus six other proteins designated SMG1, SMG5, SMG6, SMG7, UPF2 and UPF3. SMG5, SMG7 and UPF1 localize to cytoplasmic foci called P-bodies, while SMG5, SMG6 and SMG7 target UPF1 for dephosphorylation. SMG5 is involved in nonsense-mediated mRNA decay, is necessary for TERT activity and promotes dephosphorylation of RENT1. SMG6 is a component of the telomerase ribonucleoprotein (RNP) complex that is necessary for the replication of chromosome termini. It may also be involved in telomere regulation, as it helps TERT elongate telomeres.

## REFERENCES

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7. Fukuhara, N., Ebert, J., Unterholzner, L., Lindner, D., Izaurralde, E. and Conti, E. 2005. SMG7 is a 14-3-3-like adaptor in the nonsense-mediated mRNA decay pathway. *Mol. Cell* 17: 537-547.

## CHROMOSOMAL LOCATION

Genetic locus: SMG6 (human) mapping to 17p13.3; Smg6 (mouse) mapping to 11 B5.

## SOURCE

SMG6 (P-18)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SMG6 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-50984 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for gel supershift and ChIP applications, sc-50984 X, 200 µg/0.1 ml.

## APPLICATIONS

SMG6 (P-18)-R is recommended for detection of SMG6 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).

Suitable for use as control antibody for SMG6 siRNA (h): sc-61569, SMG6 siRNA (m): sc-61570, SMG6 shRNA Plasmid (h): sc-61569-SH, SMG6 shRNA Plasmid (m): sc-61570-SH, SMG6 shRNA (h) Lentiviral Particles: sc-61569-V and SMG6 shRNA (m) Lentiviral Particles: sc-61570-V.

SMG6 (P-18) X TransCruz antibody is recommended for gel supershift and ChIP applications.

## 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) 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.

## 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.