

# C10orf12 (N-19): sc-241954

## BACKGROUND

C10orf12 (chromosome 10 open reading frame 12) is a 1,247 amino acid protein that undergoes post-translational phosphorylation in response to DNA damage, most likely by either ATM or ATR. The gene encoding C10orf12 maps to human chromosome 10q24.1. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Several protein-coding genes, including those that encode for chemokines, cadherins, excision repair proteins, early growth response factors (Egrs) and fibroblast growth receptors (FGFRs), are located on chromosome 10. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

## REFERENCES

- Jabs, E.W., et al. 1994. Jackson-Weiss and Crouzon syndromes are allelic with mutations in fibroblast growth factor receptor 2. *Nat. Genet.* 8: 275-279.
- Deloukas, P., et al. 2000. Report of the third international workshop on human chromosome 10 mapping and sequencing 1999. *Cytogenet. Cell Genet.* 90: 1-12.
- Gilbert, F. 2001. Chromosome 10. *Genet. Test.* 5: 69-82.
- Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. *Neurogenetics* 4: 1-15.
- Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
- Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. *Am. J. Surg. Pathol.* 32: 1258-1264.
- Yin, Y., et al. 2008. PTEN: a new guardian of the genome. *Oncogene* 27: 5443-5453.
- Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. *Hum. Mutat.* 31: 113-126.

## CHROMOSOMAL LOCATION

Genetic locus: C10orf12 (human) mapping to 10q24.1.

## SOURCE

C10orf12 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of C10orf12 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.

Blocking peptide available for competition studies, sc-241954 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

C10orf12 (N-19) is recommended for detection of C10orf12 of 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).

C10orf12 (N-19) is also recommended for detection of C10orf12 in additional species, including equine and porcine.

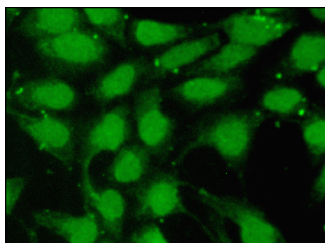
Suitable for use as control antibody for C10orf12 siRNA (h): sc-90453, C10orf12 shRNA Plasmid (h): sc-90453-SH and C10orf12 shRNA (h) Lentiviral Particles: sc-90453-V.

Molecular Weight of C10orf12: 137 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™ 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.

## DATA



C10orf12 (N-19): sc-241954. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

## 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) or our catalog for detailed protocols and support products.