

# CCDC14 (Y-16): sc-102411

## BACKGROUND

Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes. Notably, there is a chemokine receptor gene cluster and a variety of human cancer related loci on chromosome 3. Particular regions of the chromosome 3 short arm are deleted in many types of cancer cells. Key tumor suppressing genes on chromosome 3 encode apoptosis mediator RASSF1, cell migration regulator HYAL1 and angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth Disease are a few of the numerous genetic diseases associated with chromosome 3. The gene encoding CCDC14 (coiled-coil domain-containing protein 14), a 905 amino acid protein, exists on chromosome 3. There are five isoforms of CCDC14 that are produced as a result of alternative splicing events.

## REFERENCES

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- Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
- Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. *Genomics* 83: 193-202.
- Yue, Y., et al. 2005. Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. *Cytogenet. Genome Res.* 108: 98-105.
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- Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.
- Nareyeck, G., et al. 2006. Establishment and characterization of two uveal melanoma cell lines derived from tumors with loss of one chromosome 3. *Exp. Eye Res.* 83: 858-864.

## CHROMOSOMAL LOCATION

Genetic locus: CCDC14 (human) mapping to 3q21.1.

## SOURCE

CCDC14 (Y-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of CCDC14 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102411 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CCDC14 (Y-16) is recommended for detection of CCDC14 of human and rat 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); non cross-reactive with other CCDC family members.

CCDC14 (Y-16) is also recommended for detection of CCDC14 in additional species, including canine and bovine.

Suitable for use as control antibody for CCDC14 siRNA (h): sc-78243, CCDC14 shRNA Plasmid (h): sc-78243-SH and CCDC14 shRNA (h) Lentiviral Particles: sc-78243-V.

Molecular Weight of CCDC14 isoform 1/2/3: 106/84/88 kDa.

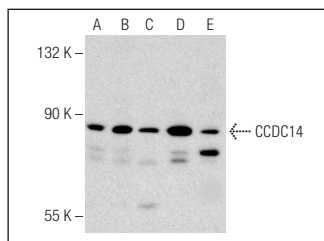
Molecular Weight of CCDC14 isoform 4/5/6: 51/89/102 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, SW480 cell lysate: sc-2219 or MDA-MB-231 cell lysate: sc-2232.

## 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



CCDC14 (Y-16): sc-102411. Western blot analysis of CCDC14 expression in MCF7 (A), SW480 (B), T84 (C), MDA-MB-231 (D) and Jurkat (E) whole cell lysates.

## 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.