

# CCDC91 (D-12): sc-514452

## BACKGROUND

CCDC91 (coiled-coil domain-containing protein 91), also known as GGABP (GGA-binding partner), is a 441 amino acid membrane protein that exists as three alternatively spliced isoforms and forms a homodimer. Interacting with GGA1, GGA2 and  $\gamma$ 1-adaptin, CCDC91 is involved in the regulation of membrane traffic through the *trans*-Golgi network (TGN). The gene that encodes CCDC91 consists of approximately 446,702 bases and maps to human chromosome 12p11.22. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is also linked to chromosome 12. Chromosome 12 is home to a homeobox gene cluster, which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster, encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction.

## REFERENCES

1. Delgado Carrasco, J., et al. 2001. Achondrogenesis type II-hypochondrogenesis: radiological features. Case report. *An. Esp. Pediatr.* 55: 553-557.
2. Yokoyama, T., et al. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. *Am. J. Ophthalmol.* 136: 1186-1188.
3. Lui, W.W., et al. 2003. Binding partners for the COOH-terminal appendage domains of the GGAs and  $\gamma$ -adaptin. *Mol. Biol. Cell* 14: 2385-2398.

## CHROMOSOMAL LOCATION

Genetic locus: CCDC91 (human) mapping to 12p11.22; Ccdc91 (mouse) mapping to 6 G3.

## SOURCE

CCDC91 (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 91-110 within an internal region of CCDC91 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CCDC91 (D-12) is available conjugated to agarose (sc-514452 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514452 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514452 PE), fluorescein (sc-514452 FITC), Alexa Fluor® 488 (sc-514452 AF488), Alexa Fluor® 546 (sc-514452 AF546), Alexa Fluor® 594 (sc-514452 AF594) or Alexa Fluor® 647 (sc-514452 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514452 AF680) or Alexa Fluor® 790 (sc-514452 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514452 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

CCDC91 (D-12) is recommended for detection of CCDC91 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CCDC91 siRNA (h): sc-95897, CCDC91 siRNA (m): sc-142156, CCDC91 shRNA Plasmid (h): sc-95897-SH, CCDC91 shRNA Plasmid (m): sc-142156-SH, CCDC91 shRNA (h) Lentiviral Particles: sc-95897-V and CCDC91 shRNA (m) Lentiviral Particles: sc-142156-V.

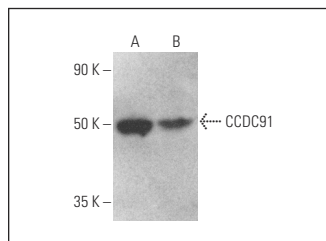
Molecular Weight of CCDC91 isoforms: 50/47/46 kDa.

Positive Controls: rat testis extract: sc-2400 or mouse testis extract: sc-2405.

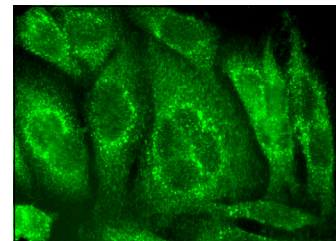
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CCDC91 (D-12) HRP: sc-514452 HRP. Direct western blot analysis of CCDC91 expression in rat testis (A) and mouse testis (B) tissue extracts.



CCDC91 (D-12): sc-514452. Immunofluorescence staining of formalin-fixed SW480 cells showing Golgi apparatus and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Zhu, Y., et al. 2024. A mutation in CCDC91, *Homo sapiens* coiled-coil domain containing 91 protein, cause autosomal-dominant acrokeratoelastoidosis. *Eur. J. Hum. Genet.* 32: 647-655.

## 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.