

# FUNDC2 (2G12): sc-517152

## BACKGROUND

FUNDC2 Antibody (2G12) is a high quality monoclonal FUNDC2 antibody (also designated FUNDC2 antibody) suitable for the detection of the FUNDC2 protein of human origin. FUNDC2 Antibody (2G12) is available as the non-conjugated anti-FUNDC2 antibody. FUNDC2 (FUN14 domain-containing protein 2), also known as HCC-3 (cervical cancer proto-oncogene 3 protein), HCBP6 (hepatitis C virus core-binding protein 6) or DC44, is a 189 amino acid protein belonging to the FUN14 family. The gene encoding FUNDC2 maps to human chromosome Xq28. The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of an X and Y chromosome lead to normal male development while two copies of X lead to normal female development. More than one copy of the X chromosome with a Y chromosome causes Klinefelter's syndrome. A single copy of X alone leads to Turner's syndrome. More than two copies of the X chromosome, in the absence of a Y chromosome, is known as Triple X syndrome. Color blindness, hemophilia, and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

## REFERENCES

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- Muntoni, F., et al. 2003. Dystrophin and mutations: one gene, several proteins, multiple phenotypes. *Lancet Neurol.* 2: 731-740.
- Deeb, S.S. 2005. The molecular basis of variation in human color vision. *Clin. Genet.* 67: 369-377.
- Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. *Nature* 434: 325-337.
- Bojesen, A., et al. 2006. The metabolic syndrome is frequent in Klinefelter's syndrome and is associated with abdominal obesity and hypogonadism. *Diabetes Care* 29: 1591-1598.
- Hayashi, T., et al. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. *Vis. Neurosci.* 23: 411-417.

## CHROMOSOMAL LOCATION

Genetic locus: FUNDC2 (human) mapping to Xq28.

## SOURCE

FUNDC2 (2G12) is a mouse monoclonal antibody raised against amino acids 1-100 representing partial length FUNDC2 of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

FUNDC2 (2G12) is recommended for detection of FUNDC2 of human 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FUNDC2 siRNA (h): sc-90945, FUNDC2 shRNA Plasmid (h): sc-90945-SH and FUNDC2 shRNA (h) Lentiviral Particles: sc-90945-V.

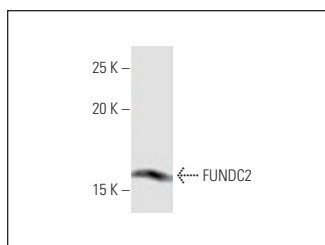
Molecular Weight of FUNDC2: 21 kDa.

Positive Controls: human kidney extract: sc-363764.

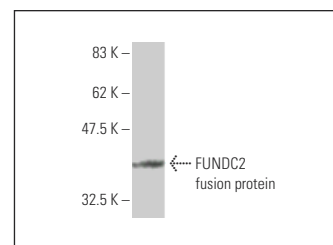
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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).

## DATA



FUNDC2 (2G12): sc-517152. Western blot analysis of FUNDC2 expression in human kidney tissue extract.



FUNDC2 (2G12): sc-517152. Western blot analysis of human recombinant FUNDC2 fusion protein.

## SELECT PRODUCT CITATIONS

- Doccini, S., et al. 2020. Proteomic and functional analyses in disease models reveal CLN5 protein involvement in mitochondrial dysfunction. *Cell Death Discov.* 6: 18.

## 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) for detailed protocols and support products.