

# C15orf58 (E-17): sc-242053

## BACKGROUND

C15orf58 is a 385 amino acid protein that is localized to the cytoplasm and belongs to the VTC2 family. C15orf58 functions as a highly efficient GDP-D-glucose phosphorylase and regulates the amount of GDP-D-glucose in cells. The gene encoding C15orf58 maps to human chromosome 15, which encodes more than 700 genes and is about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

## REFERENCES

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- Adler, L.N., Gomez, T.A., Clarke, S.G. and Linster, C.L. 2011. A novel GDP-D-glucose phosphorylase involved in quality control of the nucleoside diphosphate sugar pool in *Caenorhabditis elegans* and mammals. *J. Biol. Chem.* 286: 21511-21523.

## CHROMOSOMAL LOCATION

Genetic locus: GDPGP1 (human) mapping to 15q26.1.

## SOURCE

C15orf58 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C15orf58 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-242053 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

C15orf58 (E-17) is recommended for detection of C15orf58 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)], 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).

C15orf58 (E-17) is also recommended for detection of C15orf58 in additional species, including bovine.

Suitable for use as control antibody for C15orf58 siRNA (h): sc-90100, C15orf58 shRNA Plasmid (h): sc-90100-SH and C15orf58 shRNA (h) Lentiviral Particles: sc-90100-V.

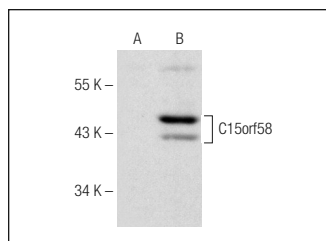
Molecular Weight of C15orf58: 42 kDa.

Positive Controls: C15orf58 (h) 293T whole cell lysate: sc-175833 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

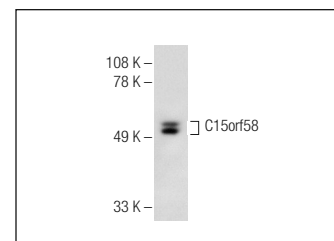
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



C15orf58 (E-17): sc-242053. Western blot analysis of C15orf58 expression in non-transfected: sc-117752 (A) and human C15orf58 transfected: sc-175833 (B) 293T whole cell lysates.



C15orf58 (E-17): sc-242053. Western blot analysis of C15orf58 expression in NTERA-2 cl.D1 whole cell lysate.

## 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.