

# C11orf58 (G-15): sc-242005

## BACKGROUND

C11orf58 (chromosome 11 open reading frame 58), also known as SMAP (small acidic protein), is a 183 amino acid protein that belongs to the SMAP family and is encoded by a gene located on human chromosome 11. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and  $\beta$  thalassemia are caused by HBB gene mutations. Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11.

## REFERENCES

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2. Loussouarn, G., et al. 2006. KCNQ1 K<sup>+</sup> channel-mediated cardiac channelopathies. *Methods Mol. Biol.* 337: 167-183.
3. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
4. Zehelein, J., et al. 2006. Skipping of exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. *J. Biol. Chem.* 281: 35397-35403.
5. Ataga, K.I., et al. 2007.  $\beta$ -thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. *Br. J. Haematol.* 139: 3-13.
6. Berger, A.C., et al. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. *J. Cell Sci.* 120: 3640-3652.
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## CHROMOSOMAL LOCATION

Genetic locus: C11orf58 (human) mapping to 11p15.1; 1110004F10Rik (mouse) mapping to 7 F1.

## SOURCE

C11orf58 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C11orf58 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-242005 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

C11orf58 (G-15) is recommended for detection of C11orf58 of human origin, 1110004F10Rik of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:200, 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).

C11orf58 (G-15) is also recommended for detection of C11orf58 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for C11orf58 siRNA (h): sc-96887, 1110004F10Rik siRNA (m): sc-108142, C11orf58 shRNA Plasmid (h): sc-96887-SH, 1110004F10Rik shRNA Plasmid (m): sc-108142-SH, C11orf58 shRNA (h) Lentiviral Particles: sc-96887-V and 1110004F10Rik shRNA (m) Lentiviral Particles: sc-108142-V.

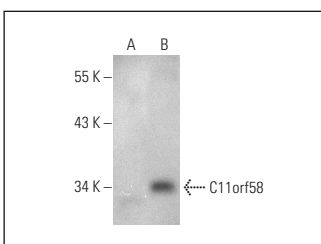
Molecular Weight of C11orf58: 20 kDa.

Positive Controls: C11orf58 (h): 293T Lysate: sc-111732.

## 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



C11orf58 (G-15): sc-242005. Western blot analysis of C11orf58 expression in non-transfected: sc-117752 (A) and human C11orf58 transfected: sc-111732 (B) 293T 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.