# C11orf74 (E-16): sc-138852



The Power to Question

#### **BACKGROUND**

C11orf74 (chromosome 11 open reading frame 74), also known as FLJ38678, is a 123 amino acid protein that exists as 2 alternatively spliced isoforms 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 ataxiatelangiectasia. 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**

- Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129: 51-61.
- 2. Loussouarn, G., et al. 2006. KCNQ1 K+ 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.
- Ataga, K.I., et al. 2007. β-thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. Br. J. Haematol. 139: 3-13.
- 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.
- 7. Lee, J.H., et al. 2007. Activation and regulation of ATM kinase activity in response to DNA double-strand breaks. Oncogene 26: 7741-7748.
- 8. O'Connor, M.J., et al. 2007. Targeted cancer therapies based on the inhibition of DNA strand break repair. Oncogene 26: 7816-7824.

# CHROMOSOMAL LOCATION

Genetic locus: C11orf74 (human) mapping to 11p12; B230118H07Rik (mouse) mapping to 2 E2.

# SOURCE

C11orf74 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of C11orf74 of human origin.

#### **PRODUCT**

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

Blocking peptide available for competition studies, sc-138852 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

C11orf74 (E-16) is recommended for detection of C11orf74 of mouse, rat and human origin 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); non cross-reactive with other C11orf family members.

C11orf74 (E-16) is also recommended for detection of C11orf74 in additional species, including canine.

Suitable for use as control antibody for C11orf74 siRNA (h): sc-96444, C11orf74 siRNA (m): sc-141820, C11orf74 shRNA Plasmid (h): sc-96444-SH, C11orf74 shRNA Plasmid (m): sc-141820-SH, C11orf74 shRNA (h) Lentiviral Particles: sc-96444-V and C11orf74 shRNA (m) Lentiviral Particles: sc-141820-V.

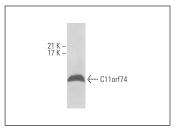
Molecular Weight of C11orf74 isoforms 1/2: 25/17 kDa.

Positive Controls: human skeletal muscle extract: sc-363776.

# **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



C11orf74 (E-16): sc-138852. Western blot analysis of C11orf74 expression in human skeletal muscle tissue extract.

#### **STORAGE**

Store at  $4^{\circ}$  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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com