

C2orf60 (Y-18): sc-242177

BACKGROUND

C2orf60 (chromosome 2 open reading frame 60), also known as JmjC domain-containing protein C2orf60, FLJ37953 or MGC70509, is a 315 amino acid protein that exists as 2 alternatively spliced isoforms that are encoded by a gene that maps to human chromosome 2q33.1. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. A number of genetic diseases are linked to genes on chromosome 2. Harlequin ichthyosis, a rare skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alstrom syndrome, is related to mutations in the ALMS1 gene. Chromosome 2 contains a probable vestigial second centromere as well as vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 formed as a result of an ancient fusion of two ancestral chromosomes, which are still present in modern day apes.

REFERENCES

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Avarello, R., et al. 1992. Evidence for an ancestral aliphoid domain on the long arm of human chromosome 2. *Hum. Genet.* 89: 247-249.
3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. *Nature* 434: 724-731.
4. Thomas, A.C., et al. 2006. ABCA12 is the major harlequin ichthyosis gene. *J. Invest. Dermatol.* 126: 2408-2413.
5. Akiyama, M., et al. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. *Dermatology* 215: 155-159.
6. Marshall, J.D., et al. 2007. Alstrom syndrome. *Eur. J. Hum. Genet.* 15: 1193-1202.

CHROMOSOMAL LOCATION

Genetic locus: TYW5 (human) mapping to 2q33.1; 1110034B05Rik (mouse) mapping to 1 C1.3.

SOURCE

C2orf60 (Y-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C2orf60 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-242177 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

C2orf60 (Y-18) is recommended for detection of C2orf60 of human origin, 1110034B05Rik of mouse origin and the corresponding rat homolog 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).

C2orf60 (Y-18) is also recommended for detection of C2orf60 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for C2orf60 siRNA (h): sc-94863, 1110034B05Rik siRNA (m): sc-108179, C2orf60 shRNA Plasmid (h): sc-94863-SH, 1110034B05Rik shRNA Plasmid (m): sc-108179-SH, C2orf60 shRNA (h) Lentiviral Particles: sc-94863-V and 1110034B05Rik shRNA (m) Lentiviral Particles: sc-108179-V.

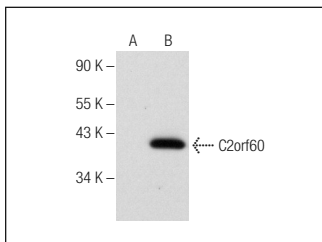
Molecular Weight of C2orf60: 37 kDa.

Positive Controls: C2orf60 (h) 293T whole cell lysate: sc-372913.

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



C2orf60 (Y-18): sc-242177. Western blot analysis of C2orf60 expression in non-transfected: sc-117752 (A) and human C2orf60 transfected: sc-372913 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.