SANTA CRUZ BIOTECHNOLOGY, INC.

LRWD1 (A-12): sc-136739

BACKGROUND

LRWD1 (leucine-rich repeats and WD repeat domain containing 1) is a 647 amino acid protein that contains 5 WD domains and 3 LRR (leucine-rich) repeats. LRWD1 undergoes post-translational phosphorylation, most likely by ATR or ATM, and is encoded by a gene that maps to human chromosome 7. Human chromosome 7 is about 158 milllion bases long, encodes over 1,000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance.

REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. J. Clin. Invest. 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
3. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. Arch. Otolaryngol. Head Neck Surg. 127: 705-708.
4. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? Cell. Mol. Life Sci. 63: 1867-1875.
5. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. Methods Mol. Med. 126: 113-128.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.
7. Gilbert-Dussardier, B. 2006. Williams-Beuren syndrome. Rev Prat. 56: 2102-2106.
8. Leone, G., et al. 2007. Therapy-related leukemia and myelodysplasia: susceptibility and incidence. Haematologica 92: 1389-1398.

CHROMOSOMAL LOCATION

Genetic locus: LRWD1 (human) mapping to 7q22.1; Lrwd1 (mouse) mapping to 5 G2.

SOURCE

LRWD1 (A-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of LRWD1 of human origin.

STORAGE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136739 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LRWD1 (A-12) is recommended for detection of LRWD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LRWD1 (A-12) is also recommended for detection of LRWD1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LRWD1 siRNA (h): sc-89721, LRWD1 siRNA (m): sc-149127, LRWD1 shRNA Plasmid (h): sc-89721-SH, LRWD1 shRNA Plasmid (m): sc-149127-SH, LRWD1 shRNA (h) Lentiviral Particles: sc-89721-V and LRWD1 shRNA (m) Lentiviral Particles: sc-149127-V.

Molecular Weight of LRWD1: 70 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.