SANTA CRUZ BIOTECHNOLOGY, INC.

CECR2 (G-19): sc-86102

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adenosine deaminase is an enzyme that is present in most tissues and exists predominantly as a monomer, although in some tissues it is associated with adenosine deaminase-binding protein. Adenosine deaminase degrades extracellular adenosine, which is toxic for lymphocytes. A novel family of growth factors that share sequence similarity to adenosine deaminase has been identified. The cat eye syndrome critical region protein (CECR) family includes CECR1, CECR2, CECR3, CECR4, CECR5, CECR6, CECR7, CECR8 and CECR9. The genes encoding CECR proteins are candidates for cat eye syndrome (CES), a developmental disorder associated with the duplication of a 2 Mb region of 22q11.21. CES is characterized by the combination of coloboma of the iris and anal atresia with fistula, downslanting palpebral fissures, preauricular tags and/or pits, frequent occurrence of heart and renal malformations, and normal or near-normal mental development. CECR family members are widely expressed. Specifically, CECR1 has the highest expression in adult heart, lung, lymphoblasts and placenta. CECR2 is also involved in neurulation and chromatin remodeling. Mutations in the CECR2 gene result in neural tube defects.

REFERENCES

1. Daddona, P.E. and Kelly, W.N. 1980. Analysis of normal and mutant forms of human adenosine deaminase- a review. Mol. Cell. Biochem. 29: 91-101.
2. Franco, R., et al. 1998. Enzymatic and extraenzymatic role of ectoadenosine deaminase in lymphocytes. Immunol. Rev. 161: 27-42.
3. Riazi, M.A., et al. 2000. The human homolog of insect-derived growth factor, CECR1, is a candidate gene for features of cat eye syndrome. Genomics 64: 277-285.
4. Maier, S.A., et al. 2001. Characterization of the adenosine deaminase-related growth factor (ADGF) gene family in *Drosophila*. Gene 280: 27-36.
5. Footz, T.K., et al. 2001. Analysis of the cat eye syndrome critical region in humans and the region of conserved synteny in mice: a search for candidate genes at or near the human chromosome 22 pericentromere. Genome Res. 11: 1053-1070.
6. Banting, G.S., et al. 2005. CECR2, a protein involved in neurulation, forms a novel chromatin remodeling complex with SNF2L. Hum. Mol. Genet. 14: 513-524.
7. Riazi, A.M., et al. 2005. Transgenic expression of CECR1 adenosine deaminase in mice results in abnormal development of heart and kidney. Transgenic Res. 14: 333-336.
8. Keuling, A., et al. 2007. Mutation analysis of *Drosophila* dikar/CG32394, homologue of the chromatin-remodelling gene CECR2. Genome 50: 767-777.

CHROMOSOMAL LOCATION

Genetic locus: CECR2 (human) mapping to 22q11.21; Cecr2 (mouse) mapping to 6 F1.

SOURCE

CECR2 (G-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of CECR2 of human origin.

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-86102 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CECR2 (G-19) is recommended for detection of CECR2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

CECR2 (G-19) is also recommended for detection of CECR2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for CECR2 siRNA (h): sc-105195, CECR2 siRNA (m): sc-142258, CECR2 shRNA Plasmid (h): sc-105195-SH, CECR2 shRNA Plasmid (m): sc-142258-SH, CECR2 shRNA (h) Lentiviral Particles: sc-105195-V and CECR2 shRNA (m) Lentiviral Particles: sc-142258-V.

Molecular Weight of CECR2: 164 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.

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.

PROTOCOLS

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