

CECR5 (B-10): sc-374563

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 two Mb region of 22q11.2. 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

- Daddona, P.E., et al. 1980. Analysis of normal and mutant forms of human adenosine deaminase a review. *Mol. Cell. Biochem.* 29: 91-101.
- Franco, R., et al. 1998. Enzymatic and extraenzymatic role of ectoadenosine deaminase in lymphocytes. *Immunol. Rev.* 161: 27-42.
- 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.
- Maier, S.A., et al. 2001. Characterization of the adenosine deaminase-related growth factor (ADGF) gene family in *Drosophila*. *Gene* 280: 27-36.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: CECR5 (human) mapping to 22q11.1; *Cecr5* (mouse) mapping to 6 F1.

SOURCE

CECR5 (B-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 43-75 near the N-terminus of CECR5 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374563 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CECR5 (B-10) is recommended for detection of CECR5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

CECR5 (B-10) is also recommended for detection of CECR5 in additional species, including equine and canine.

Suitable for use as control antibody for CECR5 siRNA (h): sc-72857, CECR5 siRNA (m): sc-142259, CECR5 shRNA Plasmid (h): sc-72857-SH, CECR5 shRNA Plasmid (m): sc-142259-SH, CECR5 shRNA (h) Lentiviral Particles: sc-72857-V and CECR5 shRNA (m) Lentiviral Particles: sc-142259-V.

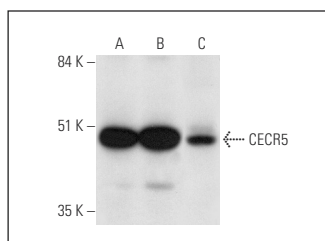
Molecular Weight of CECR5: 46 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, human liver extract: sc-363766 or Jurkat whole cell lysate: sc-2204.

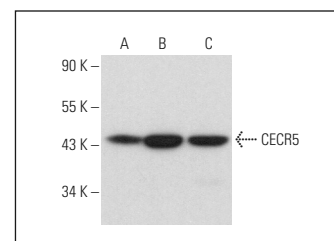
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CECR5 (B-10): sc-374563. Western blot analysis of CECR5 expression in HeLa (A) and HT-1080 (B) whole cell lysates and human liver tissue extract (C).



CECR5 (B-10): sc-374563. Western blot analysis of CECR5 expression in HeLa (A), K-562 (B) and Jurkat (C) 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.