

CECR2 (C-3): sc-514878

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

- 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.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

CECR2 (C-3) is a mouse monoclonal antibody raised against amino acids 1-182 mapping at the N-terminus of CECR2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CECR2 (C-3) is available conjugated to agarose (sc-514878 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514878 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514878 PE), fluorescein (sc-514878 FITC), Alexa Fluor® 488 (sc-514878 AF488), Alexa Fluor® 546 (sc-514878 AF546), Alexa Fluor® 594 (sc-514878 AF594) or Alexa Fluor® 647 (sc-514878 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514878 AF680) or Alexa Fluor® 790 (sc-514878 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

CECR2 (C-3) is recommended for detection of CECR2 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).

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.

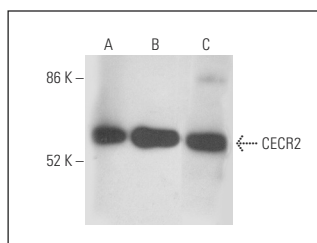
Molecular Weight of CECR2: 164 kDa.

Positive Controls: A-673 nuclear extract: sc-2128, JAR cell lysate: sc-2276 or Sol8 cell lysate: sc-2249.

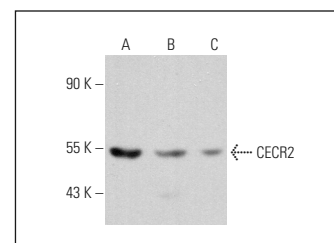
RECOMMENDED SUPPORT REAGENTS

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



CECR2 (C-3): sc-514878. Western blot analysis of CECR2 expression in A-673 nuclear extract (A) and JAR (B) and Sol8 (C) whole cell lysates.



CECR2 (C-3): sc-514878. Western blot analysis of CECR2 expression in SJRH30 (A), RPE-J (B) and NIH/3T3 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Wu, L., et al. 2020. The nuclear factor CECR2 promotes somatic cell reprogramming by reorganizing the chromatin structure. *J. Biol. Chem.* E-published.

STORAGE

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