SANTA CRUZ BIOTECHNOLOGY, INC.

EF-HC2 (C-14): sc-167728

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The Power to Question

BACKGROUND

EF-HC2 (EF-hand domain-containing family member C2) is a 749 amino acid protein containing 3 DM10 domains and an EF-hand domain. EF-HC2 shares 41.6% homology with EF-HC1, and is widely expressed in peripheral tissues and central nervous system. The gene encoding EF-HC2 maps to human chromosome Xp11.3 and is critical for recognition of facial fear and harm avoidance. Turner syndrome, characterized by deficits in social cognition and recognition of facial fear, has been linked to the EF-HC2 gene. Deletion of the EF-HC2 gene may be associated with Norrie disease, an X-linked disorder that primarily effects the eye, and may also be linked to juvenile myoclonic epilepsy. EF-HC2 exists as two isoforms due to alternative splicing events.

REFERENCES

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2. Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. Nature 434: 325-337.
3. Setter, P.W., et al. 2006. Tektin interactions and a model for molecular functions. Exp. Cell Res. 312: 2880-2896.
4. Rodriguez-Revenga, L., et al. 2007. Contiguous deletion of the NDP, MAOA, MAOB, and EFHC2 genes in a patient with Norrie disease, severe psychomotor retardation and myoclonic epilepsy. Am. J. Med. Genet. A 143A: 916-920.
5. Weiss, L.A., et al. 2007. Identification of EFHC2 as a quantitative trait locus for fear recognition in Turner syndrome. Hum. Mol. Genet. 16: 107-113.
6. Lucarini, N., et al. 2007. Genetic polymorphisms and idiopathic generalized epilepsies. Pediatr. Neurol. 37: 157-164.
7. Zinn, A.R., et al. 2008. EFHC2 SNP rs7055196 is not associated with fear recognition in 45,X Turner syndrome. Am. J. Med. Genet. B Neuropsychiatr. Genet. 147B: 507-509.
8. Blaya, C., et al. 2009. Preliminary evidence of association between EFHC2, a gene implicated in fear recognition, and harm avoidance. Neurosci. Lett. 452: 84-86.

CHROMOSOMAL LOCATION

Genetic locus: EFHC2 (human) mapping to Xp11.3; Efhc2 (mouse) mapping to X A1.2.

SOURCE

EF-HC2 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EF-HC2 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-167728 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EF-HC2 (C-14) is recommended for detection of EF-HC2 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); non cross-reactive with EF-HC1.

F-HC2 (C-14) is also recommended for detection of EF-HC2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EF-HC2 siRNA (h): sc-91117, EF-HC2 siRNA (m): sc-143312, EF-HC2 shRNA Plasmid (h): sc-91117-SH, EF-HC2 shRNA Plasmid (m): sc-143312-SH, EF-HC2 shRNA (h) Lentiviral Particles: sc-91117-V and EF-HC2 shRNA (m) Lentiviral Particles: sc-143312-V.

Molecular Weight of EF-HC2 isoform 1/2: 87/19 kDa.

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) 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.

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.