

CRF-RII (C-15): sc-20550

BACKGROUND

Individuals suffering from Alzheimer's disease (AD) exhibit dramatic reductions in the content of corticotropin-releasing factor (CRF), increased expression of CRF receptors (CRFRs) and abnormalities in neuronal morphology in affected brain areas. In addition, AD patients show decreased concentrations of CRF in their cerebrospinal fluid, which may contribute to their cognitive impairment. A high affinity CRF binding protein, designated CRF-BP, has been discovered in postmortem brain samples from AD patients. CRF-BP serves to bind and inactivate CRF, reducing the pool of "free CRF" available to bind CRFRs. Two CRF receptors, designated CRF-RI and CRF-RII, exhibit distinct brain localizations. Two forms of CRF-RII, designated CRF-RII α and CRF-RII β , result from alternative mRNA splicing. Urocortin, an additional member of the CRF family, shares 63% sequence identity with urotensin and 45% sequence identity with CRF. Urocortin specifically binds to and activates CRF-RI and CRF-RII, but binds to CRF-RII more efficiently than CRF, suggesting that it may be the true, high affinity ligand for the CRF receptor type II.

CHROMOSOMAL LOCATION

Genetic locus: CRHR2 (human) mapping to 7p15; Crhr2 (mouse) mapping to 6 B3.

SOURCE

CRF-RII (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CRF-RII of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-20550 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRF-RII (C-15) is recommended for detection of CRF-RII of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 μ g per 100–500 μ g 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).

CRF-RII (C-15) is also recommended for detection of CRF-RII in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CRF-RII siRNA (h): sc-39916, CRF-RII siRNA (m): sc-39917, CRF-RII shRNA Plasmid (h): sc-39916-SH, CRF-RII shRNA Plasmid (m): sc-39917-SH, CRF-RII shRNA (h) Lentiviral Particles: sc-39916-V and CRF-RII shRNA (m) Lentiviral Particles: sc-39917-V.

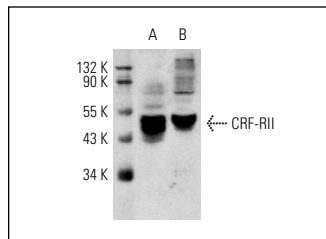
Molecular Weight of CRF-RII: 53-66 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, BC₃H1 cell lysate: sc-2299 or U-87 MG cell lysate: sc-2411.

STORAGE

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

DATA



CRF-RII (C-15): sc-20550. Western blot analysis of CRF-RII expression in BC₃H1 (A) and U-87 MG (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Papadopoulos, N.G., et al. 2005. Regulation of corticotropin-releasing hormone receptor-2 expression in human cord blood-derived cultured mast cells. *J. Mol. Endocrinol.* 35: R1-R8.
2. Xu, J., et al. 2006. Dynamic expression and regulation of the corticotropin-releasing hormone/urocortin-receptor-binding protein system in the primate ovary during the menstrual cycle. *J. Clin. Endocrinol. Metab.* 91: 1544-1553.
3. Gounko, N.V., et al. 2006. The dynamic developmental localization of the full-length corticotropin-releasing factor receptor type 2 in rat cerebellum. *Eur. J. Neurosci.* 23: 3217-3224.
4. Bishop, G.A., et al. 2006. Evidence for the presence of the type 2 corticotropin releasing factor receptor in the rodent cerebellum. *J. Neurosci. Res.* 84: 1255-1269.
5. Gao, L., et al. 2007. Corticotropin-releasing hormone receptor type 1 and type 2 mediate differential effects on 15-hydroxy prostaglandin dehydrogenase expression in cultured human chorion trophoblasts. *Endocrinology* 148: 1524-1538.
6. Cong, B., et al. 2009. Reduced expression of CRH receptor type 1 in upper segment human myometrium during labour. *Reprod. Biol. Endocrinol.* 7: 43.

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.