

# CRF (C-20): sc-1759

## 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 post-mortem brain samples from AD patients. CRF-BP serves to bind and inactivate CRF, reducing the pool of "free CRF" available to bind CRFRs. Two CRFRs, designated CRF-RI and CRF-RII, have been described and exhibit distinct brain localizations. There are two forms of CRF-RII, referred to as CRF-RII  $\alpha$  and CRF-RII  $\beta$ , that result from alternative mRNA splicings. An additional member of the CRF family, urocortin, shares 63% sequence identity with urocortin 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: CRH (human) mapping to 8q13.1; Crh (mouse) mapping to 3 A2.

## SOURCE

CRF (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CRF of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-1759 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CRF (C-20) is recommended for detection of CRF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 (C-20) is also recommended for detection of CRF in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for CRF siRNA (h): sc-39395, CRF siRNA (m): sc-39396, CRF shRNA Plasmid (h): sc-39395-SH, CRF shRNA Plasmid (m): sc-39396-SH, CRF shRNA (h) Lentiviral Particles: sc-39395-V and CRF shRNA (m) Lentiviral Particles: sc-39396-V.

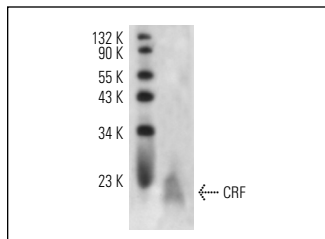
Molecular Weight of CRF: 25 kDa.

Positive Controls: PC-12 + NGF cell lysate: sc-3808, PC-12 cell lysate: sc-2250 or mouse brain extract: sc-2253.

## STORAGE

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

## DATA



CRF (C-20): sc-1759. Western blot analysis of CRF expression in mouse brain tissue extract.

## SELECT PRODUCT CITATIONS

- Grove, K.L., et al. 2000. Neuropeptide Y Y5 receptor protein in the cortical/limbic system and brainstem of the rat: expression on  $\gamma$ -aminobutyric acid and corticotropin-releasing hormone neurons. *Neuroscience* 100: 731-740.
- Malagoli, D., et al. 2007. Presence of and stress-related changes in urocortin-like molecules in neurons and immune cells from the mussel *Mytilus galloprovincialis*. *Peptides* 28: 1545-1552.
- Krause, K., et al. 2007. Corticotropin-releasing hormone skin signaling is receptor-mediated and is predominant in the sebaceous glands. *Horm. Metab. Res.* 39: 166-170.
- Chocyk, A., et al. 2008. Dopamine D1-like receptors agonist SKF 38393 increases cFOS expression in the paraventricular nucleus of the hypothalamus—impact of acute and chronic cocaine. *J. Physiol. Pharmacol.* 59: 425-440.
- Tighilet, B., et al. 2009. Stress axis plasticity during vestibular compensation in the adult cat. *Neuroscience* 160: 716-730.
- Miceli, F., et al. 2009. Expression and subcellular localization of CRH and its receptors in human endometrial cancer. *Mol. Cell. Endocrinol.* 305: 6-11.
- Maalood, N., et al. 2010. Nociceptin/orphanin FQ peptide in hypothalamic neurones associated with the control of feeding behaviour. *J. Neuroendocrinol.* 22: 75-82.

## RESEARCH USE

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



Try **CRF (2B11): sc-293187**, our highly recommended monoclonal alternative to CRF (C-20).