

CRF-BP (E-2): sc-365426

BACKGROUND

Response to stress in mammals requires an intact hypothalamic-pituitary-adrenal axis. The proximal part of the response is mediated by secretion of corticotropin-releasing hormone (CRH) by the paraventricular nucleus of the hypothalamus. CRH is a 41 amino acid peptide derived by enzymatic cleavage from a 191 amino acid prohormone. CRH is produced not only in the hypothalamus but also in peripheral tissues, such as T lymphocytes; it is highly expressed in human placenta. Glucocorticoids stimulate placental CRH synthesis and secretion in primary cultures of human placenta. This stimulation is in contrast to the glucocorticoid suppression of CRH expression in hypothalamus. The gene which encodes CRH maps to human chromosome 8q13. Human plasma contains a CRH-binding protein, CRH-BP (also designated CRF-BP) which inactivates CRH and which may prevent inappropriate pituitary-adrenal stimulation in pregnancy. The gene which encodes CRF-BP maps to human chromosome 5q13.3.

REFERENCES

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2. Arbiser, J.L., et al. 1988. Human corticotropin releasing hormone gene is located on the long arm of chromosome 8. *Cytogenet. Cell Genet.* 47: 113-116.
3. Potter, E., et al. 1991. Cloning and characterization of the cDNAs for human and rat corticotropin releasing factor-binding proteins. *Nature* 349: 423-426.
4. Vamvakopoulos, N.C., et al. 1995. Mapping the human corticotropin releasing hormone binding protein gene (CRHBP) to the long arm of chromosome 5 (5q11.2-q13.3). *Genomics* 25: 325-327.
5. Behan, D.P., et al. 1995. Corticotropin releasing factor binding protein (CRF-BP) is expressed in neuronal and astrocytic cells. *Brain Res.* 698: 259-264.
6. Behan, D.P., et al. 1996. Urocortin interaction with corticotropin-releasing factor (CRF) binding protein (CRF-BP): a novel mechanism for elevating "free" CRF levels in human brain. *Brain Res.* 725: 263-267.
7. Behan, D.P., et al. 1997. Corticotropin-releasing factor (CRF), CRF-binding protein (CRF-BP), and CRF/CRF-BP complex in Alzheimer's disease and control postmortem human brain. *J. Neurochem.* 68: 2053-2060.
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CHROMOSOMAL LOCATION

Genetic locus: CRHBP (human) mapping to 5q13.3.

SOURCE

CRF-BP (E-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 299-322 at the C-terminus of CRF-BP of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ 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-365426 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CRF-BP (E-2) is recommended for detection of CRF-BP of 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).

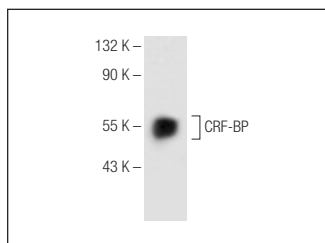
Suitable for use as control antibody for CRF-BP siRNA (h): sc-39397, CRF-BP shRNA Plasmid (h): sc-39397-SH and CRF-BP shRNA (h) Lentiviral Particles: sc-39397-V.

Molecular Weight of CRF-BP: 37 kDa.

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



CRF-BP (E-2): sc-365426. Western blot analysis of human recombinant CRF-BP.

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.