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CRH Antibody

Catalog # ASC11801

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P06850
Other Accession	NP_000747, 4503041
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	21422
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CRH antibody can be used for detection of CRH by Western blot at 1 - 2 □g/ml. Antibody can also be used for Immunohistochemistry at 5 □g/mL. For Immunoflorescence start at 20 □g/mL.

Additional Information

Gene ID	1392
Other Names	Corticoliberin, Corticotropin-releasing factor, CRF, Corticotropin-releasing hormone, CRH
Target/Specificity	CRH; CRH antibody is human specific.
Reconstitution & Storage	CRH antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	CRH Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CRH {ECO:0000303|PubMed:2783917, ECO:0000312|HGNC:HGNC:2355}
Function	Hormone that plays a central role in whole body adaptation to stress (By similarity). Released by the hypothalamus primarily in response to physical or psychological stress and acts by binding to CRH receptor CRHR1, and to a lower extent, CRHR2 (PubMed:18801728, PubMed:3003585, PubMed:32004469). CRH-dependent signaling is a primary mediator of the neuroendocrine, autonomic (fight-or-flight) and behavioral responses to stress, acting as a key regulator of adaptation by activating the hypothalamus-pituitary-adrenal axis, leading to corticotropin hormone (ACTH) production (By similarity). Acts as a 'placental clock' during pregnancy, regulating gestational length, fetal development and the timing of labor (PubMed:7585095). Also acts as a regulator of blastocyst implantation by

	promoting decidualization, regulating trophoblast invasion and facilitating maternal immune tolerance (PubMed:11590404).
Cellular Location	Secreted
Tissue Location	Produced by the hypothalamus and placenta.

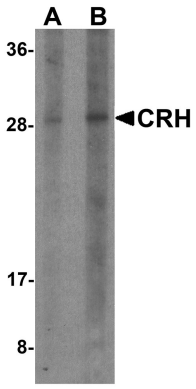
Background

Corticotropin-releasing hormone (CRH) is secreted by the paraventricular nucleus (PVN) of the hypothalamus in response to stress (1). In addition to production in the hypothalamus, this protein is also synthesized in peripheral tissues, such as T lymphocytes and is highly expressed in the placenta where it is a marker that determines the length of gestation and the timing of parturition and delivery. A rapid increase in circulating levels of the hormone occurs at the onset of parturition, suggesting that, in addition to its metabolic functions, this protein may act as a trigger for parturitio (2). Marked reduction in this protein has been observed in association with Alzheimer disease (3).

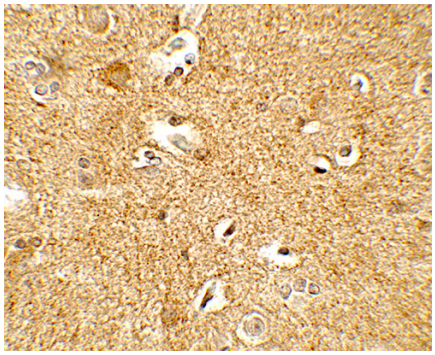
References

Maras PM and Baram TZ. Sculpting the hippocampus from within: stress, spines, and CRH. Trends Neurosci. 2012; 315-24.
Vrachnis N, Malamas FM, Sifakis S, et al. Immune aspects and myometrial actions of progesterone and CRH in labor. Clin. Dev. Immunol. 2012; 937618.
Leake A, Perry EK, Perry RH, et al. Neocortical concentrations of neuropeptides in senile dementia of the Alzheimer and Lewy body type: comparison with Parkinson's disease and severity correlations. Biol. Psychiatry 1991; 29:357-64.

Images

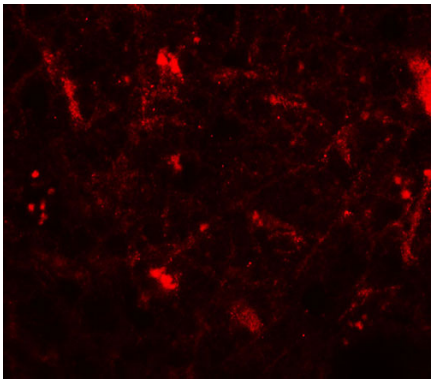


Western blot analysis of CRH in human placenta tissue lysate with CRH antibody at (A) 1 and (B) 2 µg/ml.



Immunohistochemistry of CRH in human brain tissue with CRH antibody at 5 µg/mL.

Immunofluorescence of CRH in human brain tissue with CRH antibody at 20 µg/mL.



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