



**LD Biopharma, Inc.**  
9924 Mesa Rim Road, Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CRH Protein  
**Catalog Number:** hRP-0393  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human Corticotropin-releasing hormone (CRH) is secreted by the paraventricular nucleus (PVN) of the hypothalamus in response to stress. Marked reduction in this protein has been observed in association with Alzheimer disease and autosomal recessive hypothalamic corticotropin deficiency has multiple and potentially fatal metabolic consequences including hypoglycemia and hepatitis. 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. In the placenta 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 parturition.

Full-length mature human CRH gene was constructed with N-terminal 15aa T7 tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** CRH (CRF)  
**Accession Number:** NP\_000747  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Meltzer-Brody,S., et al. *Elevated corticotropin releasing hormone (CRH) during*



**LD Biopharma, Inc.**  
9924 Mesa Rim Road, Suite B  
San Diego, CA 92121  
Tel: 858-876-8266  
<http://www.ldbiopharma.com>

*pregnancy and risk of postpartum depression (PPD)*. J. Clin. Endocrinol. Metab. 96 (1), E40-E47 (2011)

Novembri,R., et al. *Impaired CRH and urocortin expression and function in eutopic endometrium of women with endometriosis*. J. Clin. Endocrinol. Metab. 96 (4), 1145-1150 (2011)

## **Applications**

1. Active protein, may be used for in vitro corticotropin regulation study.
2. Potential biomarker protein for PPD diagnosis applications.
3. As immunogen for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

Functional Test: Not tested yet.

## **Recombinant Protein Sequence**

MASMTGGQENGRGEFLLSRGPVPGARQAPQHPQPLDFFQPPPQSEQPQQPQARPVLLRMGEEYF  
LRLGNLNKSPAAPLSPASSLLAGGSGSRPSPEQATANFFRVLLQQLLLPRRSLDSPAALAERGA  
RNALGGHQEAPERERRSEEPPIISLDLTFHLLREVLEMARAEQLAQQAHNSNRKLMEIIGK