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## Product Data Sheet

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Product Name: ACTH 4-11 (Adrenocorticotrophic Hormone (4-11), human)

Cat. No.: GC31530

### Chemical Properties

Cas. No. 67224-41-3

SMILES Met-Glu-His-Phe-Arg-Trp-Gly-Lys

Formula C<sub>50</sub>H<sub>71</sub>N<sub>15</sub>O<sub>11</sub>S

M.Wt 1090.26

Solubility DMF: 10mg/mL, DMSO: 10mg/mL, PBS (pH 7.2):  
10mg/mL

Storage Store at -  
20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure

### Background

ACTH (4-11) is a peptide fragment of adrenocorticotrophic hormone, a peptide hormone found in the brain that is involved in the biological stress response.<sup>1</sup> ACTH (4-11) induces differentiation of melanocytes when used at a concentration of 1,000 nM.<sup>2</sup> It inhibits angiotensin converting enzyme (ACE) activity in homogenized canine lung with an IC<sub>50</sub> value of 24 μM.<sup>3</sup> ACTH (4-11) has been used to determine substrate specificity of recombinant *H. zea* carboxypeptidase B enzyme (CPBHz).<sup>4</sup>

1. Strand, F.L., Lee, S.J., Zuccarelli, L.A., et al. Non-corticotrophic ACTH peptides modulate nerve development and regeneration. *Rev. Neurosci.* 4(4)321-363(1993)  
2. Vatolin, S., Phillips, J.G., Jha, B.K., et al. Novel protein disulfide isomerase inhibitor with anticancer activity in multiple myeloma. *Cancer Res.* 76(11)3340-3350(2016)  
3. Verma, P.S., Miller, R.L., Taylor, R.E., et al. Inhibition of canine lung angiotensin converting enzyme by ACTH and structurally related peptides. *Biochem. Biophys. Res. Commun.* 104(4)1484-1488(1982)  
4. Bayés, A., Rodríguez de la Vega, M., Vendrell, J., et al. Response of the digestive system of *Helicoverpa zea* to ingestion of potato carboxypeptidase inhibitor

**Caution: Product has not been fully validated for medical applications. For research use only.**

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and characterization of an uninhibited carboxypeptidase B *Insect Biochem. Mol. Biol.* 36(8)654-664(2006)

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