

Product Data Sheet

Cat#SP-62197-5

ACTH (11-24) peptide

size: 5mg

Description:

Adrenocorticotrophic hormone (ACTH), also known as corticotropin, is a polypeptide tropic hormone produced and secreted by the anterior pituitary gland. It is an important component of the hypothalamic-pituitary-adrenal axis and is often produced in response to biological stress. Its principal effects are increased production and release of corticosteroids. ACTH is secreted from corticotropes in the anterior lobe (or adenohypophysis) of the pituitary gland in response to the hormone corticotropin-releasing hormone (CRH) released by the hypothalamus.

ACTH acts by binding to cell surface ACTH receptors, which are located primarily on adrenocortical cells of the adrenal cortex. The ACTH receptor is a seven-membrane-spanning G protein-coupled receptor.

ACTH influences steroid hormone secretion by both rapid short-term mechanisms. ACTH also stimulates lipoprotein uptake into cortical cells. This increases the bio-availability of cholesterol in the cells of the adrenal cortex. ACTH also enhances transcription of mitochondrial genes that encode for subunits of mitochondrial oxidative phosphorylation systems. These actions are necessary to supply the enhanced energy needs of adrenocortical cells stimulated by ACTH.

In a patient with hypercortisolism, an elevated adrenocorticotrophic hormone (ACTH) indicates primary adrenal insufficiency, whereas a value that is not elevated is consistent with secondary adrenal insufficiency from a pituitary or hypothalamic cause. In a patient with hypercortisolism (Cushing syndrome), a suppressed value is consistent with a cortisol-producing adrenal adenoma or carcinoma, primary adrenal micronodular hyperplasia, or exogenous corticosteroid use.

Experimental results indicate that this C-terminal fragment is devoid of any behavioral activity, but inhibits the behavioral syndrome induced by ACTH-(1-24). This suggests that the fragment-(11-24) of the ACTH molecule may contain or represent an address sequence for brain ACTH receptors and may be involved in the termination of the behavioral response to melanocortins.

Sources of Peptide

Cat # SP-62197-5
Sequence: (AA: Lys-Pro-Val-Gly-Lys-Lys-Arg-Arg-Pro-Val-Lys-Val-Tyr-Pro)
MW: 1652.08
Purity: >95%

After reconstitution in water, store solution in small aliquots at -20oC for 3-6 months. Do not freeze and thaw or store diluted solutions.

Storage: Store powder at -20oC for up to 6 months.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

General references: Demers LM (2006) Textbook of Clinical Chemistry and Molecular Diagnostics 2014-2027; Dibner (2010) *Annual Review of Physiology* 72: 517-549. Genedani S Neuropeptides. 1994 Apr;26(4):241-4.

Related items:

Catalog#	ProdDescription
SP-100819-5	[Glu10] - ACTH (1 - 17) MW: 2165.50]
SP-100820-1	Biotin-ACTH (1-39), (MW: 4767.47)
SP-103048-1	ACTH (18-39) (MW: 2692.02)
SP-51725-1	ACTH(4-10), Human MW: 962.1]
SP-52147-1	[D-Ser1]-ACTH (1-24) MW: 2933.50]
SP-52315-1	ACTH(1-39), Human MW: 4541.1]
SP-55135-1	ACTH (1-14) MW: 1680.9]
SP-55156-1	ACTH (1-16), Human MW: 1937.27]
SP-55159-1	ACTH (1-17), Human MW: 2093.5]
SP-55173-1	ACTH (1-4) peptide MW: 486.6]
SP-55215-1	ACTH(18-39), MW: 2465.7]
SP-55222-1	ACTH(1-24), MW: 2993.5]
SP-55359-1	ACTH(1-10), MW: 1299.4]
SP-55399-1	ACTH(1-13), Human MW: 1623.9]
SP-55405-1	ACTH(1-39), Rat MW: 4582.3]
SP-62195-1	ACTH (6-24), human MW: 2335.9)
SP-62197-5	ACTH (11-24) (MW: 1652.08)
SP-62198-5	ACTH (34-39) (MW: 722.85)
SP-80991-5	ACTH (5-10) (MW: 830.91)
SP-86493-1	Ac-ACTH (1-17) (MW: 2135.50)]
SP-86495-1	[D-Lys16]-ACTH (1-24) MW: 2933.50]
SP-86496-1	[Phe2, Nie4]-ACTH (1-24) MW 2899.47]
SP-86497-1	ACTH (1-39) (guinea pig) (MW: 4529.16)
SP-86498-1	ACTH (3-24), human (MW: 2683.25)
SP-86499-5	ACTH (4-9) (MW: 905.05)
SP-86543-5	Tyr-ACTH (4-9)MW: 1068.23)
SP-86544-5	ACTH(4-9), (MW: 1125.28)
SP-86545-5	ACTH (4-11) (MW: 1090.28)
SP-86546-5	[Tyr15]-ACTH (7-15) MW 1109.31]
SP-86547-1	ACTH (7- 38), human (MW: 3659.20)
SP-86548-1	ACTH (22-39) (MW: 1985.11)
SP-87342-1	ACTH (12-39) (MW: 3172.66)

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rev 140206P

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