

PRODUCT INFORMATION



hCG α (human, recombinant)

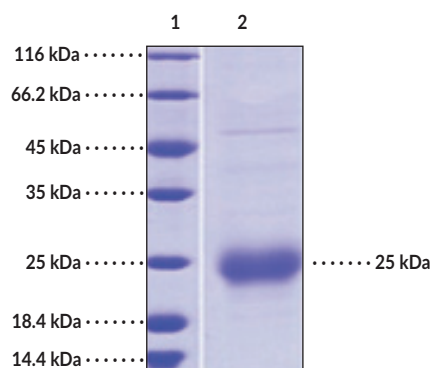
Item No. 42766

Overview and Properties

Synonyms:	Follicle-stimulating Hormone Subunit α , FSH α , Glycoprotein Hormone α , Human Chorionic Gonadotropin α , Human Chorionic Gonadotropin Subunit α , LH α , Luteinizing Hormone Subunit α , Thyroid Stimulating Hormone Subunit α , TSH α
Source:	Recombinant hCG α expressed in HEK293 cells
Amino Acids:	25-116
Uniprot No.:	P01215
Molecular Weight:	10.2 kDa
Storage:	-80°C (as supplied)
Stability:	≥ 1 year
Purity:	$\geq 97\%$ estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile PBS, pH 7.4.
Endotoxin Testing:	< 1.0 EU/ μ g, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: hCG α

SDS-PAGE Analysis of hCG α . This protein has a calculated molecular weight of 10.2 kDa. It has an apparent molecular weight of approximately 25 kDa by SDS-PAGE due to glycosylation under reducing conditions.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Human chorionic gonadotropin subunit α (hCG α) is a hormone subunit and a member of the gonadotrophin hormone family.^{1,2} It is composed of a central cysteine knot that forms disulfide bridges with hCG β or β subunits from other hormones, including luteinizing hormone (LH), follicle-stimulating hormone (FSH), and thyroid stimulating hormone (TSH). Dimerization of these hormones with hCG α activates the LH receptor (LHR), FSH receptor (FSHR), or thyroid stimulating hormone receptor (TSHR).^{2,3} hCG α is expressed in and secreted from the anterior pituitary gland and placenta.³ hCG α has roles in promoting angiogenesis in the uterus during pregnancy, growth of fetal organs, gonad development and maturation, and production and secretion of progesterone and thyroid hormones.^{1,4-6} Cayman's hCG α (human, recombinant) protein consists of 92 amino acids and has a calculated molecular weight of 10.2 kDa. By SDS-PAGE, the apparent molecular mass of the protein is approximately 25 kDa.

References

1. Cole, L.A. Biological functions of hCG and hCG-related molecules. *Reprod. Biol. Endocrinol.* **8**, 102 (2010).
2. Lapthorn, A.J., Harris, D.C., Littlejohn, A., *et al.* Crystal structure of human chorionic gonadotropin. *Nature* **369**(6480), 455-461 (1994).
3. Garcia-Campayo, V., Kumar, T.R., and Boime, I. Thyrotropin, follitropin, and chorionic gonadotropin expressed as a single multifunctional unit reveal remarkable permissiveness in receptor-ligand interactions. *Endocrinology* **143**(10), 3773-3778 (2002).
4. Eblen, A., Bao, S., Lei, Z.M., *et al.* The presence of functional luteinizing hormone/chorionic gonadotropin receptors in human sperm. *J. Clin. Endocrinol. Metab.* **86**(6), 2643-2648 (2001).
5. Simoni, M., Gromoll, J., and Nieschlag, E. The follicle-stimulating hormone receptor: Biochemistry, molecular biology, physiology, and pathophysiology. *Endocr. Rev.* **18**(6), 739-773 (1997).
6. Bassett, J.H. and Williams, G.R. Role of thyroid hormones in skeletal development and bone maintenance. *Endocr. Rev.* **37**(2), 135-187 (2016).

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