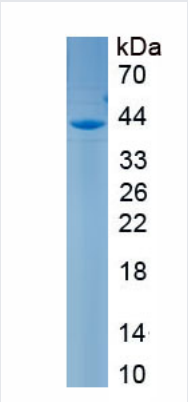
Luteinizing Hormone (LH) Active Protein

PRODUCT OVERVIEW

Product Name	Luteinizing Hormone (LH), Active Protein
Full Product Name	Active Luteinizing Hormone (LH)
Product Gene Name	LH active protein
Product Synonym Names	Luteinizing Hormone; LH active protein (prokaryotic), Human; ICSH; Lutropin; Interstitial Cell Stimulating Hormone
Host	E coli
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose. Freeze-dried powder
Purity/Purification	Greater than 90% by SDS-PAGE
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months Stable for 12 months if correctly stored.
Molecular Weight	Predicted: 34 kDa Observed: 36 kDa
Sequence Positions	Ala25~Ser116+GGGGS*3+Ser21~Leu141
OMIM	113730
3D Structure	ModBase 3D Structure for P25874
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Expression System	Prokaryotic expression
Species	Human
Tag	N-terminal His
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8
Research Area	Endocrinology
Product Categories/Family for LH active protein	Active proteins
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for LH active protein	Cell culture, Activity Assay
Related Product Information for LH active protein	MBS2153304 is an active protein targeting LH. Also known as Active Luteinizing Hormone (LH). Host: E coli.
Other Notes	Small volumes of LH active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-PAGE of LH active protein
Figure. SDS-PAGE

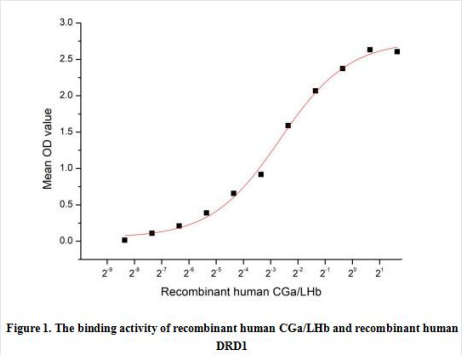


Figure 1. The binding activity of recombinant human CGa/LHb and recombinant human DRD1

Activity of LH active protein
Luteinizing Hormone (LH) is a 42 kDa heterodimer belonging to the glycoprotein hormone family. It is composed of noncovalently linked glycosylated alpha and beta chains. The alpha subunit (CG alpha) is also a component of Follicle-Stimulating Hormone (FS

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for LH. It may not necessarily be applicable to this product.

NCBI GI #	11225256
NCBI GeneID	7350
NCBI Accession #	NP_068605
UniProt Primary Accession #	P25874
UniProt Secondary Accession #	Q13218; Q4KMZ3; Q68G66
UniProt Related Accession #	P25874
GenBank Nucleotide #	NM_021833.4
NCBI Official Full Name	mitochondrial brown fat uncoupling protein 1
NCBI Official Synonym Full Names	uncoupling protein 1 (mitochondrial, proton carrier)
NCBI Official Symbol	UCP1
NCBI Official Synonym Symbols	UCP; SLC25A7
UniProt Protein Name	Mitochondrial brown fat uncoupling protein 1
UniProt Synonym Protein Names	Solute carrier family 25 member 7; Thermogenin
UniProt Gene Name	UCP1
UniProt Synonym Gene Names	SLC25A7; UCP; UCP 1
UniProt Entry Name	UCP1_HUMAN
NCBI Protein Information	mitochondrial brown fat uncoupling protein 1; thermogenin; solute carrier family 25 member 7
NCBI Summary for LH	Mitochondrial uncoupling proteins (UCP) are members of the family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, also referred to as the mitochondrial proton leak. UCPs facilitate the transfer of anions from the inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. Tissue specificity occurs for the different UCPs and the exact methods of how UCPs transfer H+/OH- are not known. UCPs contain the three homologous protein domains of MACPs. This gene is expressed only in brown adipose tissue, a specialized tissue which functions to produce heat. [provided by RefSeq, Jul 2008]

UniProt Comments for LH	UCP1: UCP are mitochondrial transporter proteins that create proton leaks across the inner mitochondrial membrane, thus uncoupling oxidative phosphorylation from ATP synthesis. As a result, energy is dissipated in the form of heat. Belongs to the mitochondrial carrier family. Protein type: Membrane protein, integral; Membrane protein, multi-pass; Mitochondrial Chromosomal Location of Human Ortholog: 4q28-q31 Cellular Component: mitochondrion; mitochondrial inner membrane; integral to membrane Molecular Function: oxidative phosphorylation uncoupler activity Biological Process: regulation of transcription from RNA polymerase II promoter; cellular metabolic process; proton transport; brown fat cell differentiation; mitochondrial transport Disease: Obesity
Research Articles on LH	**1.** In obesity, in vitro differentiated beige/brite adipocytes derived from preadipocytes of human subcutaneous white adipose tissues express less UCP1.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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