CGA Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	Chorionic Gonadotropin/CGA, Cell Lysate
Full Product Name	Human Chorionic Gonadotropin/CGA HEK293 Overexpression Lysate
Product Gene Name	CGA cell lysate
Product Synonym Names	Human FSH alpha/TSH alpha/CGA HEK293 Cell Lysate (WB positive control); glycoprotein hormones, alpha polypeptide; Human CG-ALPHA Overexpression Lysate; Human FSH alpha Overexpression Lysate; Human FSHA Overexpression Lysate; Human GPHa Overexpression Lysate; Human GPHA1 Overexpression Lysate; Human HCG Overexpression Lysate; Human LHA Overexpression Lysate; Human TSHA Overexpression Lysate
Sequence	Met1-Ser11 6
Host	HEK293 Cells
Form/Format	1x Sample Buffer (1x modified RIPA buffer+1x SDS loading buffer). Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt.
Molecular Weight	13,075 Da
Sequence Positions	326aa
OMIM	118850
3D Structure	ModBase 3D Structure for P01215
Species	Human
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube.**2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min.**
Sequence Construction	A DNA sequence encoding the human CGA (NP_000726.1) (Met1-Ser116) was expressed with the Fc region of mouse IgG1 at the C-terminus.
Preparation Method	Cell lysate was prepared by homogenization of the over-expressed cells in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Applications Tested/Suitable for CGA cell lysate	Western Blot (WB)
Application Notes for CGA cell lysate	WB: Use at an assay dependent dilution.
Related Product Information for CGA cell lysate	This Human Chorionic Gonadotropin/CGA overexpression lysate was created in HEK293 Cells and intented for use as a Western blot (WB) positive control. Purification of Chorionic Gonadotropin/CGA protein from the overexpression lysate was verified.
Other Notes	Small volumes of CGA cell lysate 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.

Searchable Terms for CGA purchase	MBS8114221 is a cell lysate targeting CGA. Also known as Human Chorionic Gonadotropin/CGA HEK293 Overexpression Lysate. Host: HEK293 Cells.

ADDITIONAL DETAILS

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

NCBI GI #	4502787
NCBI GeneID	1081
NCBI Accession #	NP_000726.1
UniProt Primary Accession #	P01215
UniProt Related Accession #	P01215
GenBank Nucleotide #	NM_000735.3
NCBI Official Full Name	glycoprotein hormones alpha chain isoform 2
NCBI Official Synonym Full Names	glycoprotein hormones, alpha polypeptide
NCBI Official Symbol	CGA
NCBI Official Synonym Symbols	HCG; LHA; FSHA; GPHa; TSHA; GPHA1; CG-ALPHA
UniProt Protein Name	Glycoprotein hormones alpha chain
UniProt Synonym Protein Names	Anterior pituitary glycoprotein hormones common subunit alpha; Choriogonadotropin alpha chain; Chorionic gonadotrophin subunit alpha; CG-alpha; Follicle-stimulating hormone alpha chain; FSH-alpha; Follitropin alpha chain; Luteinizing hormone alpha chain; LSH-alpha; Lutropin alpha chain; Thyroid-stimulating hormone alpha chain; TSH-alpha; Thyrotropin alpha chain
Protein Family	Glycoprotein hormones
UniProt Gene Name	CGA
UniProt Synonym Gene Names	CG-alpha; FSH-alpha; LSH-alpha; TSH-alpha
UniProt Entry Name	GLHA_HUMAN
NCBI Protein Information	glycoprotein hormones alpha chain; FSH-alpha; LSH-alpha; TSH-alpha; anterior pituitary glycoprotein hormones common subunit alpha; choriogonadotropin alpha chain; chorionic gonadotrophin subunit alpha; chorionic gonadotropin, alpha polypeptide; follicle-s
NCBI Summary for CGA	The four human glycoprotein hormones chorionic gonadotropin (CG), luteinizing hormone (LH), follicle stimulating hormone (FSH), and thyroid stimulating hormone (TSH) are dimers consisting of alpha and beta subunits that are associated noncovalently. The alpha subunits of these hormones are identical, however, their beta chains are unique and confer biological specificity. The protein encoded by this gene is the alpha subunit and belongs to the glycoprotein hormones alpha chain family. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]

UniProt Comments for CGA	CGA: The four human glycoprotein hormones chorionic gonadotropin (CG), luteinizing hormone (LH), follicle stimulating hormone (FSH), and thyroid stimulating hormone (TSH) are dimers consisting of alpha and beta subunits that are associated noncovalently. The alpha subunits of these hormones are identical, however, their beta chains are unique and confer biological specificity. The protein encoded by this gene is the alpha subunit and belongs to the glycoprotein hormones alpha chain family. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011] Protein type: Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 6q12-q21 Cellular Component: extracellular region Molecular Function: protein binding; hormone activity Biological Process: cellular protein metabolic process; cell-cell signaling; peptide hormone processing; positive regulation of cell proliferation; positive regulation of transcription from RNA polymerase II promoter; signal transduction; positive regulation of cell migration
Research Articles on CGA	**1.** A protective effect of hCG against breast cancer may be associated with its growth inhibitory and differentiation induction function in breast cancer cells.
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