

Placental Lactogen/CSH1 Protein, Human (HEK293, His)

Cat. No.:	HY-P7871
Synonyms:	rHuPlacental Lactogen/CSH1, His; Chorionic Somatomammotropin Hormone; Choriomammotropin; Lactogen; Placental Lactogen; PL; CSH1
Species:	Human
Source:	HEK293
Accession:	PODML2 (V27-F217)
Gene ID:	1442
Molecular Weight:	Approximately 22-24kDa

PROPERTIES

AA Sequence	<p>V Q T V P L S R L F D H A M L Q A H R A H Q L A I D T Y Q E F E E T Y I P K D Q</p> <p>K Y S F L H D S Q T S F C F S D S I P T P S N M E E T Q Q K S N L E L L R I S L</p> <p>L L I E S W L E P V R F L R S M F A N N L V Y D T S D S D D Y H L L K D L E E G</p> <p>I Q T L M G R L E D G S R R T G Q I L K Q T Y S K F D T N S H N H D A L L K N Y</p> <p>G L L Y C F R K D M D K V E T F L R M V Q C R S V E G S C G F</p>
Biological Activity	Measured in a cell proliferation assay using Nb211 rat lymphoma cells. The ED ₅₀ for this effect is 0.2359 ng/mL, corresponding to a specific activity of 4.240 x 10 ⁶ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Placental Lactogen/CSH1 Protein, exclusively generated during pregnancy, plays a pivotal role in orchestrating lactation, fetal growth, and metabolic processes. Remarkably, it exhibits a unique mode of action, as it does not interact with the Growth Hormone Receptor (GHR). Instead, its activation is exclusively mediated through zinc-induced dimerization of the Prolactin Receptor (PRLR). This distinctive mechanism contributes to the protein's specificity and underscores its
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significance in the intricate processes associated with pregnancy and maternal physiology. Notably, Placental Lactogen/CSH1 can exist in both monomeric and dimeric forms, highlighting its structural versatility.

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

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