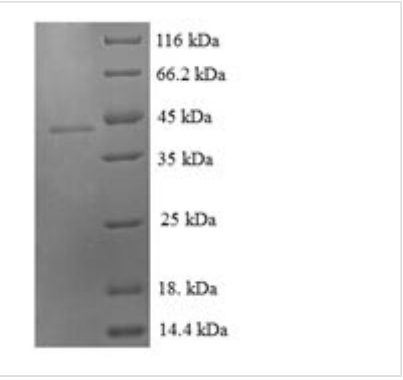
Recombinant Human Growth/differentiation factor 9 (GDF9)

Product Code	CSB-EP009352HU
Relevance	Required for ovarian folliculogenesis. Promotes primordial follicle development. Stimulates granulosa cell proliferation. Promotes cell transition from G0/G1 to S and G2/M phases, through an increase of CCND1 and CCNE1 expression, and RB1 phosphorylation. It regulates STAR expression and cAMP-dependent progesterone release in granulosa and thecal cells. Attenuates the suppressive effects of activin A on STAR expression and progesterone production by increasing the expression of inhibin B. It suppresses FST and FSTL3 production in granulosa-lutein cells.
Abbreviation	Recombinant Human GDF9 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O60383
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	GQETVSSELKKPLGPASFNLSEYFRQFLLPQNECELHDFRLSFSQLKWDNWIV APHRYNPRYCKGDCPRAVGHRYGSPVHTMVQNIIYEKLDSSVPRPSCVPAKY SPLSVLTIEPDGSIAYKEYEDMIATKCTCR
Research Area	Cardiovascular
Source	E.coli
Target Names	GDF9
Expression Region	320-454aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal GST-tagged
Mol. Weight	42.5kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The gene responsible for the Human GDF9 protein (320-454aa) is incorporated into a plasmid vector, forming recombinant plasmid. The resulting recombinant plasmid is introduced into e.coli cells, from which cells survive in the presence of a specific antibiotic are selected. The selected e.coli cells containing the recombinant plasmid are cultured under conditions that facilitate the expression of the gene of interest. A N-terminal GST tag is linked to the protein. After expression, affinity purification is used to isolate and purify the recombinant Human GDF9 protein from the cell lysate. Denaturing SDS-PAGE is employed to resolve the resulting recombinant Human GDF9 protein, revealing a purity greater than 90%.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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