GDF-9 Protein, Human (GST)

Cat. No.:	HY-P72425
Synonyms:	GDF9; Growth/differentiation factor 9; GDF-9
Species:	Human
Source:	E. coli
Accession:	O60383 (G320-R454)
Gene ID:	2661
Molecular Weight:	Approximately 42.5 kDa

PROPERTIES

AA Sequence	Q E T V S S E L K K P L G P A S F N L S E Y F R Q F L L P Q N E C E L H D F R L S F S Q L K W D N W I V A P H R Y N P R Y C K G D C P R A V G H R Y G S P V H T M V Q N I I Y E K L D S S V P R P S C V P A K Y S P L S V L T I E P D G S I A Y K E Y E D M I A T K C T C R
Appearance	Lyophilized powder.
Formulation	Lyophilized from 0.22 μm filtered solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	GDF-9 protein is crucial for ovarian folliculogenesis, playing a pivotal role in promoting the development of primordial follicles and stimulating granulosa cell proliferation. It facilitates the transition of cells from G0/G1 to S and G2/M phases by upregulating the expression of CCND1 and CCNE1, along with phosphorylation of RB1. Additionally, GDF-9 regulates STAR expression and cAMP-dependent progesterone release in granulosa and thecal cells. It counteracts the inhibitory effects of activin A on STAR expression and progesterone production by increasing inhibin B expression. Furthermore, GDF-9 suppresses the production of FST and FSTL3 in granulosa-lutein cells. While forming homodimers or heterodimers, unlike other family members, GDF-9 cannot undergo disulfide-linked interactions.

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

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