

## Active Recombinant Mouse Growth Differentiation Factor 9

Cat. No. Gdf9-726M Lot. No. (See product label)

### SPECIFICATION

|                            |   |
|----------------------------|---|
| <b>Product Overview</b>    | Recombinant Mouse Gdf9 protein was expressed in CHO. Gly307-Arg441.   |
| <b>Species</b>             | Mouse   |
| <b>Source</b>              | CHO   |
| <b>Protein Length</b>      | 307-441 a.a.  |
| <b>Description</b>         | Gdf9 is a member of the transforming growth factor $\beta$ (TGF- $\beta$ ) superfamily, and is an oocyte secreted paracrine factor essential for mammalian ovarian folliculogenesis. Mouse Gdf9 is synthesized as a 441 amino acid (aa) prepropeptide that contains a 29 aa signal sequence, a 277 aa propeptide, and a 135 aa mature chain). Residues 340-441 constitute a TGF- $\beta$ like domain. In addition, there is one potential site of N-linked glycosylation in the mature chain. |
| <b>Form</b>                | Lyophilized from a 0.2 $\mu$ m filtered solution in HCl with BSA as a carrier protein.  |
| <b>N-terminal Sequence</b> | Gly307  |
| <b>Molecular Weight</b>    | 15.6 kDa  |
| <b>Activity</b>            | Measured by its ability to induce Smad2 phosphorylation in P19 mouse embryonal carcinoma cells. Mazerbourg, S. et al. (2004) Mol. Endocrinol. 18:653. 100ng/mL rmGdf9 can effectively induce Smad2 phosphorylation.   |

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|                        |   |
|------------------------|---|
| <b>Endotoxin Level</b> | <1.0 EU per 1 µg of the protein by the LAL method.  |
| <b>SDS-PAGE</b>        | 20 kDa, reducing conditions.  |
| <b>Purity</b>          | >95%, by SDS-PAGE under reducing conditions and visualized by silver stain.   |
| <b>Reconstitution</b>  | 100 µg/mL in 4 mM HCl that containing 0.1% bovine serum albumin.  |
| <b>Storage</b>         | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution. |

## GENE INFORMATION

|                            |   |
|----------------------------|---|
| <b>Gene Name</b>           | Gdf9 growth differentiation factor 9 [ Mus musculus ]                         |
| <b>Official Symbol</b>     | Gdf9  |
| <b>Synonyms</b>            | Gdf9; growth differentiation factor 9; Gdf-9; growth/differentiation factor 9 |
| <b>Gene ID</b>             | 14566   |
| <b>mRNA Refseq</b>         | NM_008110   |
| <b>Protein Refseq</b>      | NP_032136   |
| <b>UniProt ID</b>          | Q07105  |
| <b>Chromosome Location</b> | 11 B1.3; 11 29.0 cM   |
| <b>Pathway</b>             | Ovarian Infertility Genes; PluriNetWork                                       |

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**Function**

cytokine activity;growth factor activity

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