# Product Data Sheet

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| Product Name: | Prelamin-A |
| Cat. No.: | GP24224 |
| Batch No.: | 1 |

## Product Data

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| Purity | >98% | Source | |
| Phycical Appearance | solid | Shipping Condition | |

Synonyms Prelamin-A/C; LMNA; LMN1; FPL; IDC; LFP; CDDC; EMD2; FPLD; HGPS; LDP1; LMNC; PRO1; CDCD1; CMD1A; FPLD2; LMNL1; CMT2B1;

Amino Acid Sequence HHHHHH-METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVHSLETENAGLRLRITESEEVVSREVSGIKAAYEAELGDARKTLDSVAKERAR

FormulationThe Prelamin-A solution (0.1mg/ml) contains 10% Glycerol.

## Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.

## Background

Recombinant Prelamin-A is a 74kDa precursor of the nuclear lamin A protein. Prelamin-A is a structural component of the nuclear lamina and it is encoded by lamin A/C gene (LMNA). Due to the presence of a CAAX box sequence at carboxyl terminus, Prelamin-A in vivo goes through a serial of post-translational modifications, resulting in the farnesylation of the cysteine thiol, removal of the AAX tripeptide, carboxyl-methylation of the cysteinyl carboxy group and proteolysis of 18 C-terminal amino acids residues that lead to mature lamin A. Diverse mutations in the lamin A/C gene are associated with different deseases that are collectively called laminophaties, including Emery-Dreifuss muscular dystrophy, familial partial lipodystrophy, limb girdle muscular dystrophy, dilated cardiomyopathy, Charcot-Marie-Tooth disease, and Hutchinson-Gilford progeria syndrome.Recombinant human prelamin A is fused to a 6 Histidine tag at the N-terminus.


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