



Via Sant'Anna 131-135
61030 Cartoceto PU (IT)
Telephone + 39 (0)721830605
Fax +39 (0)721837154
e-mail: info@diatheva.com
www.diatheva.com

Recombinant Human Prelamin A

REP0038 - REP0039
100µg - 50µg

Description	<p>Recombinant prelamin A is a 74kDa precursor of the nuclear lamin A protein, which is a structural component of the nuclear lamina encoded by lamin A/C gene (<i>LMNA</i>).</p> <p>Due to the presence of a CAAX box sequence at carboxyl terminus, prelamin A <i>in vivo</i> undergoes to serial post-translational modifications, resulting in the farnesylation of the cysteine thiol, removal of the AAX tripeptide, carboxyl-methylation of the cysteinyl carboxyl group and proteolysis of 18 C-terminal amino acids residues that lead to mature lamin A.</p> <p>Different mutations in the <i>LMNA</i> gene have been shown to be associated with different diseases collectively called <i>laminopathies</i>, including Emery-Dreifuss muscular dystrophy, familial partial lipodystrophy, limb girdle muscular dystrophy, dilated cardiomyopathy, Charcot-Marie-Tooth disease, and Hutchinson-Gilford progeria syndrome.</p>
Product type	Recombinant protein
Peptide	Recombinant full-length protein: Human Prelamin A – Accession number: NP_733821 (1 to 664) with N-terminal His tag and DDDDK tag.
Sequence	<p>MAHHHHHHVGTGSNDDDDKSPDMETPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDR LAVYIDRVHSLETENAGLRRLRI TESEEVVSREVS GIKAAEYAE LGDARKTLDVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLEALLNSKEAALSTA LSEKRTLEGELHDLRGVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNIYSEELRETKRRHETRLVEIDNGKQREF ESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAERNLNLVGAAHEELQSRIRIDLSAQLSQLQKQLAAKEAKLRDL EDSLARERDTSRRLAEEKEREMAEMRARMQQQLDEYQELLDIKLALDMEIHAYRKLLEGEERLRLSPSPTSQRSRGRASSHSSQT QGGGSVTKKRKLESTESRSSFSQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPPKFTLKAGQ VVTIWAAGAGATHSPPTDLVWKAQNTWGCNSLRTALINSTGEEVAMRKLVRSVTVVDEDEDEDGDDLLHHHHHGSHCSSSGDP AEYNLRSRTVLCGTGCGPADKASASGSGAQVGGPISSGSSASSVTVTRSYRSVGGSGGSGFDNLVTRSYLLGNSSPRTQSPQNC <u>SIM</u></p>
Expression system	<i>Escherichia coli</i>
Tested by	SDS Page, Western Blotting
Purity	> 90% pure estimated by SDS-PAGE (EU Ph. 5.0 § 2.5.31)
<p>Purified recombinant full-length human prelamin A protein (lane 1, molecular weight standard; lane 2, 1µg; lane 3, 3µg; lane 4, 5µg) was separated by SDS-PAGE (10% polyacrylamide) and stained with Coomassie Blue.</p>	
Form	Liquid
Storage buffer	20mM phosphate buffer pH 7.0, 0.5M NaCl, 1mM DTT, 1.5mM EDTA, 20%(v/v) glycerol.
Storage instructions	Shipped on dry ice. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.