

Active Native Human ELN Protein

Cat. No. ELN-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Native Human ELN Protein was purified from human skin.

InChI: 1S/C27H48N6O6/c1-9-17(6)23(32-24(36)19(13-15(2)3)30-18(7)34)26(38)29-14-21(35)31-22(16(4)5)27(39)33-12-10-11-20(33)25(37)28-8/h15-17,19-20,22-23H,9-14H2,1-8H3,(H,28,37)(H,29,38)(H,30,34)(H,31,35)(H,32,36)/t17-,19-,20-,22-,23-/m0/s1

InChI key: DPUYCSDBGMSDKKV-MKBYFEBXSA-N

CAS: 9007-58-3

EC: 232-701-4

MDL: MFCD03456696

NACRES: NA.61

Species Human

Source Skin

Description

This gene encodes a protein that is one of the two components of elastic fibers. Elastic fibers comprise part of the extracellular matrix and confer elasticity to organs and tissues including the heart, skin, lungs, ligaments, and blood vessels. The encoded protein is rich in hydrophobic amino acids such as glycine and proline, which form mobile hydrophobic regions bounded by crosslinks between lysine residues. Degradation products of the encoded protein, known as elastin-derived peptides or elastokines, bind the elastin receptor complex and other receptors and stimulate migration and proliferation of monocytes and skin fibroblasts. Elastokines can also contribute to cancer progression. Deletions and mutations in this gene are associated

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with supravalvular aortic stenosis (SVAS) and autosomal dominant cutis laxa.

Form

Insoluble powder

Bio-activity

Elastin is essential for resilience of arteries, and other elastic tissues like lungs and skin. Polymorphism in ELN gene causes intracranial aneurysm. Loss of function or haploinsufficiency of ELN gene leads to supravalvular aortic stenosis (SVAS). Frameshift mutations in ELN gene is implicated in congenital cutis laxa resulting in skin laxity and affect pulmonary and cardiovascular system.

Applications

Elastin from human skin has been used as a substrate for the enzyme reaction with age-related NADH oxidase (arNOX) using fluorescein-conjugated tyramine. Elastin is a structural protein which has been used in studies of chronic obstructive pulmonary disease (COPD). It may be used to investigate why there is a lack of repair for these proteins in patients with COPD.

Storage

2-8 centigrade

GENE INFORMATION

Gene Name

ELN elastin [Homo sapiens (human)]

Official Symbol

ELN

Synonyms

ELN; elastin; WS; WBS; SVAS; ADCL1; elastin; tropoelastin

Gene ID

2006

mRNA Refseq

NM_000501

Protein Refseq

NP_000492

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MIM	130160
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UniProt ID	P15502
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