**BioVendor - Laboratorní medicína a.s.**
Karásek 1767/1
621 00 Brno-Řečkovice a Mokrá Hora

Date of issue: 26.10.2020

# PRODUCT DATASHEET

## HAPLN1 Human, E.coli Recombinant

**Cat. No.:** RP1722012010
**Type:** Recombinant protein
**Size:** 10 µg
**Source:** E. coli
**Species:** Human

### Description

HAPLN1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 362 amino acids (16-354 a.a.) and having a molecular mass of 40.9kDa. HAPLN1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

### Other names

Hyaluronan and proteoglycan link protein 1, HAPLN1, Cartilage-linking protein 1, Cartilage-link protein, Proteoglycan link protein, CRTL1

### Introduction to the molecule

Hyaluronan And Proteoglycan Link Protein 1 (HAPLN1) is is a 354-amino acid glycoprotein belonging to a link protein gene family that consists of four HAPLN members. All four link proteins show similar structure, with NH2-terminal signal sequence followed by immunoglobulin-like domain and two link modules or proteoglycan tandem repeats

As an important component of cartilage extracellular matrix (ECM), HAPLN1 stabilizes the aggregates of proteoglycan monomers by means of hyaluronic acid (HA). In the absence of HAPLN1, aggregates are smaller and less stable. HAPLN1 binds aggrecan along the HA chain with a 1:1 stoichiometry. The resulting aggregates are entrapped within the mesh-like network of type II collagen fibrils producing a large stable macromolecular structure that contributes to compression resistance and shock absorption in the joint.

HAPLN1 is also highly expressed in noncartilaginous tissues such as small intestine and placenta, embryonic and adult heart tissues, and, to a lower extent, many other tissues.

Analysis of HAPLN1 expression levels in malignant pleural mesothelioma (MPM) patients showed that high level of HAPLN1 is associated with fast progression and poorer survival, thus suggesting potential of HAPLN1 as an MPM prognostic marker.

### Research topic

Bone and cartilage metabolism, Extracellular matrix, Oncology

### Amino Acid sequence

MGSSHHHHHH SSGLVPRGSH MGSDHLSDNY TLDHDRAIHI QAENGPHLLV EAEQAKVFSH RGGNVTLPCK FYRDPTAFGS GIHKIRIKWT KLTSDYLKEV DVFVSMGYHK KTYGGYQGRV FLKGGSDSDA SLVITDLTLE DYGRYKCEVI EGLEDDTVVV ALDLQGVVFP YFPRLGRYNL NFHEAQQACL DQDAVIASFD QLYDAWRGGL DWCNAGWLSD GSVQYPITKP REPCGGQNTV PGVRNYGFWD KDKSRYDVFC FTSNFNGRFY YLIHPTKLTY DEAVQACLND GAQIAKVGQI FAAWKILGYD RCDAGWLADG SVRYPISRPR RRCSPTEAAV RFVGFPDKKH KLYGVYCFRA YN.

### Purity

Greater than 80.0%



**BioVendor - Laboratorní medicína a.s.**
Karásek 1767/1
621 00 Brno-Řečkovice a Mokrá Hora, Czech Republic

Phone: +420-549-124-185, Fax: +420-549-211-460
E-mail: info@biovendor.com, sales@biovendor.com
Web: www.biovendor.com
There are BioVendor branches and distributors near you.
To find the office closest to you, visit www.biovendor.com/contact

**BioVendor - Laboratorní medicína a.s.**
Karásek 1767/1
621 00 Brno-Řečkovice a Mokrá Hora

Date of issue: 26.10.2020

**Formulation:**

HAPLN1 protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea and 10% glycerol.

**Shipping**

On frozen gel ice packs. Upon receipt, store the product at the temperature recommended below.

**Storage, Stability/Shelf Life**

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.

**Applications**

Cell culture and/or animal studies, In vitro

**Note**

This BioVendor product is furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.



**BioVendor - Laboratorní medicína a.s.**
Karásek 1767/1
621 00 Brno-Řečkovice a Mokrá Hora, Czech Republic

Phone: +420-549-124-185, Fax: +420-549-211-460
E-mail: info@biovendor.com, sales@biovendor.com
Web: www.biovendor.com

**BioVendor - Laboratorní medicína a.s.**
Karásek 1767/1
621 00 Brno-Řečkovice a Mokrá Hora, Czech Republic

Phone: +420-549-124-185, Fax: +420-549-211-460
E-mail: info@biovendor.com, sales@biovendor.com
Web: www.biovendor.com
There are BioVendor branches and distributors near you.
To find the office closest to you, visit www.biovendor.com/contact