

Product datasheet

Recombinant Human CILP protein ab182802

Description

Product name	Recombinant Human CILP protein
Purity	> 90 % SDS-PAGE. ab182802 is expressed in E.coli as inclusion bodies. The final product was refolded and chromatographically purified.
Expression system	Escherichia coli
Accession	O75339
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	<pre> MASMTGGQQMGRGHHHHHHGNLYFQGGEFRQTMLT QSVRRVQPGKKNPSI FAKPADTLESPGEWTTWFNIDYPGGKGDYERLDAIRFY YGDRVCARPLRL EARTTDWTPAGSTGQVVHGSPREGFWCL NREQRPQNCNSNYTVRFLCPPGSLRRDTERWSPWS PWSKCSAACGQTGV QTRTRICLAEMVSLCSEASEEGQHCMGQDCTACDLT CPMGQVNADCDACM CQDFMLHGAVSLPGGAPASGAAMLLTKTPKLLTQTDS DGRFRIPGLCPD GKSILKITVKFAPIMLTMPKTSLKAATIKAEFVRAETPY MVMNPETKAR RAGQSVSLCCKATGKPRPDKYFWYHNDLLDPSLYKH ESKLVLRLKQQHQ AGEYFCKAQSDAGAVKSKVAQLVIASDETPCNPVPE SYLIRLPHDCFQN ATNSFYDVGRCPVKTCAGQQDNGIRCRDAVQNCCGI SKTEEREIQCSGY TLPTKVAKECSCQRCTETRSIVRGRVSAADNGEPMRF GHVYMGNSRVSM GYKGTFTLHVPQDTERLVLTFVDRLQKFVNTTKVLPFN KKGSAVFHEIKM LRRKKPITLEAMETNIPLGEVVGEDPMAELEIPSRSFYR QNGEPYIGKV </pre>

KASVTFLDPRNISTATAAQTDLNFINDEGDTFPLRITYGM
FSVDFRDEVTS
EPLNAGKVKVHLDSTQVKMPEHISTVKLWSLNPD TGL
WEEEGDFKFENQR RNKR

Predicted molecular weight	82 kDa
Amino acids	22 to 724
Tags	His-T7 tag N-Terminus
Additional sequence information	Corresponds to CILP C1 protein; expressed with codon optimization and a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. NP_003604.

Specifications

Our [Abpromise guarantee](#) covers the use of **ab182802** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 8 Constituent: 0.32% Tris HCl Buffer also contains NaCl, KCl, EDTA, arginine, DTT and Glycerol.
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General Info

Function	Probably plays a role in cartilage scaffolding. May act by antagonizing TGF-beta1 (TGFB1) and IGF1 functions. Has the ability to suppress IGF1-induced proliferation and sulfated proteoglycan synthesis, and inhibits ligand-induced IGF1R autophosphorylation. May inhibit TGFB1-mediated induction of cartilage matrix genes via its interaction with TGFB1. Overexpression may lead to impair chondrocyte growth and matrix repair and indirectly promote inorganic pyrophosphate (PPi) supersaturation in aging and osteoarthritis cartilage.
Tissue specificity	Specifically expressed in cartilage. Localizes in the intermediates layer of articular cartilage but neither in the superficial nor in the deepest regions. Specifically and highly expressed in intervertebral disk tissue. Expression increases with aging in hip articular cartilage. Overexpressed in articular hyaline cartilage from patients with calcium pyrophosphate dihydrate crystal deposition disease (CPPD). Expression in intervertebral disk tissue from individuals with lumbar disk disease increases as disk degeneration progresses.
Involvement in disease	Defects in CILP are a cause of susceptibility to intervertebral disk disease (IDD) [MIM:603932]. A common musculo-skeletal disorder caused by degeneration of intervertebral disks of the lumbar spine. It results in low-back pain and unilateral leg pain. Note=Susceptibility to intervertebral disk disease, is conferred by variant p.Ile395Thr (PubMed:15864306).
Sequence similarities	Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 1 TSP type-1 domain.

**Post-translational
modifications**

Cleaved into 2 chains possibly by a furin-like protease upon or preceding secretion.

Cellular localization

Secreted > extracellular space > extracellular matrix.

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