Recombinant human HSP47/SERPINH1 protein

Catalog Number: HSP0904

PRODUCT INFORMATION

Expression system
E.coli

Domain
18-418aa

UniProt No.
P50454

NCBI Accession No.
NP_001226.2

Alternative Names
Serpin H1, Serpin family H member 1, 47 kDa heat shock protein, Arsenic-transactivated protein 3, AsTP3, Cell proliferation-inducing gene 14 protein, Collagen-binding protein, Colligin, Collagen binding protein 1, Rheumatoid arthritis-related antigen RA-A47CBP1, CBP2, SERPINH2, PIG14, Heat shock protein 47

PRODUCT SPECIFICATION

Molecular Weight
48.9 kDa (439aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol

Purity
> 90% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
Description: Heat shock protein 47 (HSP47), also known as Colligin or Serpin H1, is a serpin which serves as a human chaperone protein for collagen. This protein is a member of the serpin superfamily of serine proteinase inhibitors. Its expression is induced by heat shock. The protein acts as a molecular chaperone facilitating the folding and assembly of procollagen molecules, retaining unfolded molecules within the ER, and assisting the

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transport of correctly folded-molecules from the ER to Golgi apparatus. Recombinant human HSP47/Colligin protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

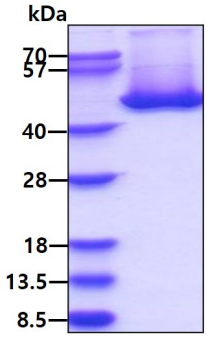
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSHM>AA EVKKPAAAAA PGTAEKLSPK AATLAERSAG LAFSLYQAMA KDQAVENILV SPVVVASSLG LVSLGGKATT ASQAKAVLSA EQLRDEEVHA GLGELLRSLS NSTARNVTWK LGSRLYGPSS VSFADDFVRS SKQHYNCEHS KINFRDKRSA LQSINEWAAQ TTDGKLPEVT KDVERTDGAL LVNAMFFKPH WDEKFHHKMV DNRGFMVTRS YTVGVMMMHR TGLYNYYDDE KEKLQIVEMP LAHKLSSLII LMPHHVEPLE RLEKLLTKEQ LKIWMGKMQK KAVAISLPKG VVEVTHDLQK HLAGLGLTEA IDKNKADLSR MSGKKDLYLA SVFHATAFEL DTDGNPFDQD IYGREELRSP KLFYADHPFI FLVRDTQSGS LLFIGRLVRP KGDKMRDEL

General References

Mohammed Tasab., et al. (2000) The EMBO Journal. 19(10): 2204-2211
Maloney A., et al. (2007) Cancer Res. 67(7):3239-53

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.