

**RPA350Hu01 10µg**

**Recombinant Collagen Type I Alpha 1 (COL1a1)**

**Organism Species: *Homo sapiens (Human)***

***Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

**[ PROPERTIES ]**

**Source:** Prokaryotic expression

**Host:** *E.coli*

**Residues:** Arg253~Ala471

**Tags:** N-terminal His Tag

**Subcellular Location:** Secreted, Extracellular matrix

**Purity:** > 95%

**Traits:** Freeze-dried powder

**Buffer formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl, 5%Trehalose.

**Original Concentration:** 150µg/mL

**Applications:** Positive Control; Immunogen; SDS-PAGE; WB.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 9.5

**Predicted Molecular Mass:** 20.7kDa

**Accurate Molecular Mass:** 27kDa as determined by SDS-PAGE reducing conditions.

**Phenomenon explanation:**

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

**[ USAGE ]**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

**[ STORAGE AND STABILITY ]**

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

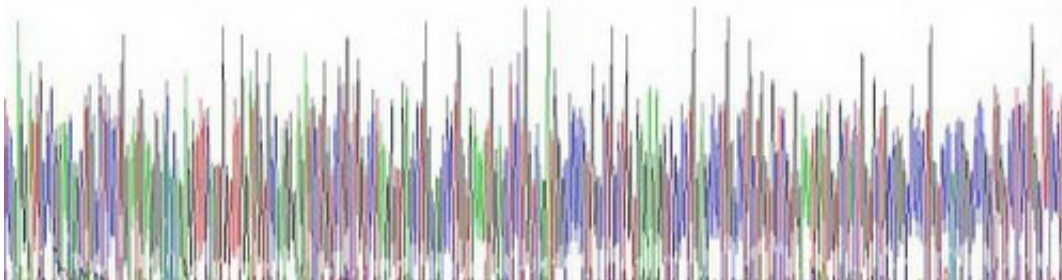
**Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

**[ SEQUENCE ]**

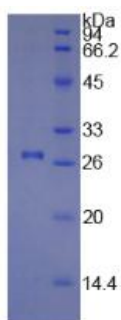
RGLPGTAG LPGMKGHRGF SGLDGAKGDA GPAGPKGEPG SPGENGAPGQ  
 MGPRGLPGER GRPGAPGPAG ARGNDGATGA AGPPGPTGPA GPPGFPGAVG  
 AKGEAGPQGP RGSEGPQGVV GEPGPPGPAG AAGPAGNPGA DGQPGAKGAN  
 GAPGIAGAPG FPGARGPSGP QGPGGPPGPK GNSGEPGAPG SKGDTGAKGE  
 PGPVGVQGPP GPAGEEGKRG A

**[ IDENTIFICATION ]**

RCIPQTACGICPCXKGRBFSGLDCAICDAGFAGFKCEPGSPGENGAPGQXGRGCLPGERGRFGAFCFACARGRDRGATGAAGFPCTCFACFPFPG



**Figure. Gene Sequencing (Extract)**



**Figure. SDS-PAGE**

**[ IMPORTANT NOTE ]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.