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YBA350Hu01 10µg
Recombinant Collagen Type I Alpha 1 (COL1a1)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

10th Edition (Revised in Jan, 2014)

[PROPERTIES]

Residues: Arg253~Ala471

Tags: N-terminal His-Tag

Accession: P02452

Host: *E. coli*

**Subcellular Location: Secreted, extracellular space,
extracellular matrix.**

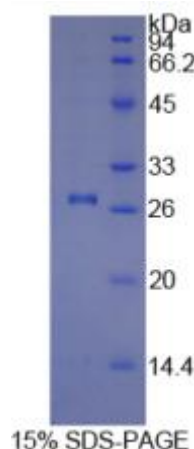
Purity: >95%

**Endotoxin Level: <1.0EU per 1µg (determined by the
LAL method).**

**Formulation: Supplied as lyophilized form in 20mM Tris
150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT,
0.01% sarcosyl, 5% trehalose, and preservative.**

Predicted isoelectric point: 9.5

Predicted Molecular Mass: 20.9kDa



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

**Accurate Molecular Mass: 27kDa as determined by SDS-PAGE reducing
conditions. Applications: SDS-PAGE; WB; ELISA; IP.**

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

Note:

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.



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- 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.**



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[USAGE]

Reconstitute in ddH₂O.

[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 of the target protein. 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. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCES]

The sequence of the target protein is listed below.

RGLPGTAGLPGMKGHRGFSGLDGAKGDAGPAGPKGEPGSPGENGAPGQ
MGPRGLPGERGRPGAPGPA GARGNDGATGAAGPPGPTGPA GPPGFPGAVG
AKGEAGPQGPRGSEGPQGV RGE PGPPGPA GAAGPAGNPGADGQPGAKGAN
GAPGIA GAGP GFPGARGPSGPQGPGGPPGPKGNSGEPGAPGSKGDTGAKGE
PGPVG VQGPP GPAGEEGKRG A

[REFERENCES]

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2. Bornstein P., *et al.* (1986) Proc. Natl. Acad. Sci. U.S.A. 84:8869-8873.
3. Chu M.-L., *et al.* (1984) J. Biol. Chem. 260:2315-2320.
4. Rossouw C.M.S., *et al.* (1986) J. Biol. Chem. 262:15151-15157.