

Datasheet for 001-001-103**Bovine Collagen Type I****Overview**

Description:	Bovine Collagen Type I - 001-001-103
Item No.:	001-001-103
Size:	500 µg
Applications:	SDS-PAGE, WB
Origin:	Bovine

Product Details

Background:	Bovine Collagen Type I is one of a family of proteins found particularly in the flesh and connective tissues of mammals (approximately one-third of the body's total protein). Over two dozen types of collagen have been described; Type I is the most abundant form in the body. Collagen Type I is found in scar tissue, tendons, the skin, arterial walls, the corneas, muscles, cartilage, and in the organic parts of bones and teeth. Bovine Collagen Type I is ideal for investigators involved in extracellular matrix proteins and osteoporosis.
Synonyms:	Type I collagen, collagen 1, bovine collagen, Alpha 1 type I collagen, Alpha 2 type I collagen, COL1A1, COL1A2, Collagen alpha-1(I) chain, Collagen alpha-2 (I) chain
Species of Origin:	Bovine
Type:	Native Protein

Target Details

Gene Name:	COL1A1
Purity/Specificity:	Bovine Collagen Type 1 has been prepared from Bovine Placenta and is chromatographically and immunologically pure. Bovine Collagen Type 1 reacts with anti-Collagen Type I. Reaction with Rockland's anti-Collagen II, III, IV, V or VI is negligible.
Relevant Links:	• GeneID - 282187 • NCBI - NP_001029211.1 • UniProtKB - P02453

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	WB (Based on references)
Application Note:	Bovine Collagen Type I purified protein standard is tested by SDS-PAGE and used as a control for SDS-PAGE, Western Blot, ELISA, immunoprecipitation, and for other immunological assays. Specific conditions should be optimized by user. Collagen type I is recognized by type specific Anti-Collagen antibodies that recognize a native three-dimensional structure.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
IHC:	1:100-1:500
IP:	User Optimized
WB:	1:1000

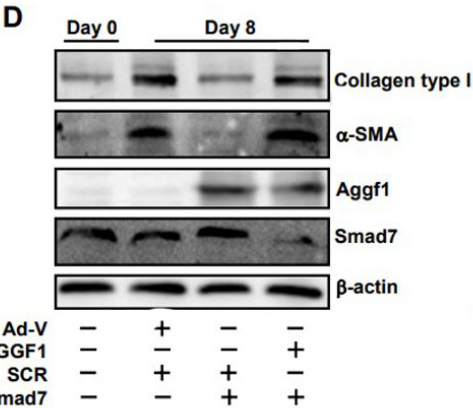
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/ml by nanodrop at 205 nm
Buffer:	0.5 M Acetic Acid
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

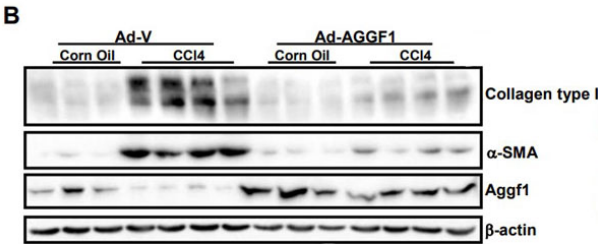
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. Do not freeze. This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



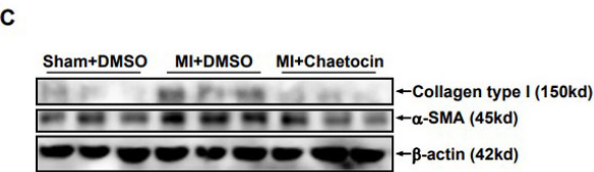
Western Blot

Aggf1 interacts with and modulates SMAD7 activity.
(D) Primary HSCs were infected with Ad-V or Ad-AGGF1 and then transfected with either siRNA targeting SMAD7 or scrambled siRNA (SCR). Expression of fibrogenic genes was examined by Western and qPCR (not shown). Figure 4. PMID: 26850475.



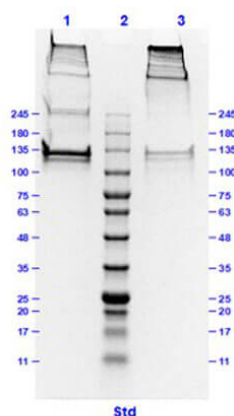
Western Blot

Aggf1 suppresses liver fibrosis following injury in mice.
(B) C57/BL6 mice were injected via tail vein adenovirus carrying either Aggf1 expression vector (Ad-AGGF1) or an empty vector (Ad-V) followed by CCI4 injection to induce liver injury. Expression of fibrogenic genes was examined by Western and qPCR (not shown). Figure 2. PMID: 26850475.



Western Blot

C57/BL mice were injected peritoneally with chaetocin (25mg/kg) or DMSO 2 days prior to the LAD procedure. The mice were sacrificed 4 weeks after the surgery. (B) Expression of pro-fibrogenic genes was examined by Western blotting and qPCR (not Shown). Supplementary Fig.9. PMID: 28361889.



SDS-PAGE

SDS-PAGE Results of Bovine Collagen Type I.

Lane 1: Bovine Collagen Type I -Reduced [10µg].

Lane 2: Opal Prestained Molecular Weight Marker (p/n MB-210-0500)

Lane 3: Bovine Collagen Type I -Non-Reduced [10µg].

4-20% Gel, Coomassie Stained.

References

- Yang G et al. The histone H3K9 methyltransferase SUV39H links SIRT1 repression to myocardial infarction. *Nat Commun.* (2017)
- Zhou B et al. Angiogenic factor with G patch and FHA domains 1 (Aggf1) regulates liver fibrosis by modulating TGF- β signaling. *Biochim Biophys Acta.* (2016)

Disclaimer

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