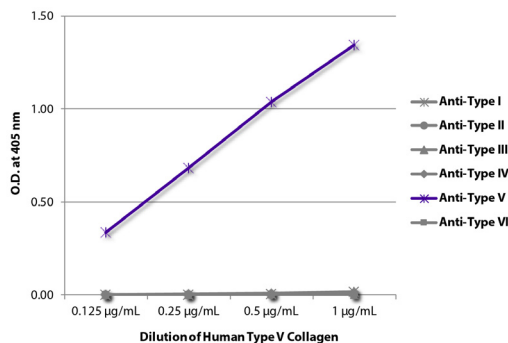




## Human Type V Collagen

Cat. No.	Format	Size
1270-01	Purified Protein - Lyophilized	0.1 mg
1270-01S	Purified Protein - Solution	0.25 mg



ELISA plate was coated with serially diluted Human Type V Collagen (SB Cat. No. 1270-01S). Purified collagen was detected with Goat Anti-Type I Collagen-BIOT (SB Cat. No. 1310-08), Goat Anti-Type II Collagen-BIOT (SB Cat. No. 1320-08), Goat Anti-Type III Collagen-BIOT (SB Cat. No. 1330-08), Goat Anti-Type IV Collagen-BIOT (SB Cat. No. 1340-08), Goat Anti-Type V Collagen-BIOT (SB Cat. No. 1350-08), and Goat Anti-Type VI Collagen-BIOT (SB Cat. No. 1360-08) followed by Streptavidin-HRP (SB Cat. No. 7100-05).

### Overview

<b>Source</b>	Placental villi
<b>Purification</b>	Controlled and limited pepsin digestion followed by selective salt precipitation
<b>Purity</b>	> 90% by SDS-PAGE
<b>Alternate Name(s)</b>	COL5A1, COL5A2, COL5A3

### Description

Collagen is the main structural protein in the extracellular space and is the most abundant protein in the ECM. Collagens are divided into two classes - fibril (types I, II, III, V) and non-fibril (types IV, VI). Type V collagen is a minor connective tissue component of nearly ubiquitous distribution. Type V collagen mutations are associated with Ehlers-Danlos syndrome. Type V collagen is broadly expressed as a two  $\alpha1(V)$  chains and one  $\alpha2(V)$  chain heterotrimer but also as a  $\alpha1(V)$ ,  $\alpha2(V)$ , and  $\alpha3(V)$  heterotrimer in pancreatic islets, adipose tissue, and skeletal muscle.

### Applications

ELISA – Quality tested <sup>1-3</sup>  
 SDS-PAGE – Quality tested  
 Thermal Stability Studies – Reported in literature <sup>4</sup>  
 Coating Material for –  
     Adhesion Studies – Reported in literature <sup>2-3</sup>  
     ECM Interaction Studies – Reported in literature <sup>5,6</sup>

### Handling and Storage

- The purified protein is supplied as a solution of 0.25 mg collagen in 0.5 mL of 500 mM acetic acid or 0.1 mg collagen lyophilized from 500 mM acetic acid. Store at 2-8°C.
- Reconstitute lyophilized protein in 500 mM acetic acid.
- Reagents are stable for the period shown on the label if stored as directed.

### Warning

Reagents contain acetic acid. Please refer to product specific SDS.

**For Research Use Only. Not for Diagnostic or Therapeutic Use.**

## References

---

1. Bumann A, Carvalho RS, Schwarzer CL, Yen EH. Collagen synthesis from human PDL cells following orthodontic tooth movement. *Eur J Orthod.* 1997;19:29-37. (ELISA, Standard Curve)
2. Saito K, Tanaka T, Kanda H, Ebisuno Y, Izawa D, Kawamoto S, et al. Gene expression profiling of mucosal addressin cell adhesion molecule-1<sup>+</sup> high endothelial venule cells (HEV) and identification of a leucine-rich HEV glycoprotein as a HEV marker. *J Immunol.* 2002;168:1050-9. (ELISA, Coat, Adhesion Studies)
3. Nagakubo D, Murai T, Tanaka T, Usui T, Matsumoto M, Sekiguchi K, et al. A high endothelial venule secretory protein, mac25/angiomodulin, interacts with multiple high endothelial venule-associated molecules including chemokines. *J Immunol.* 2003;171:553-61. (ELISA, Coat, Adhesion Studies)
4. Makareeva E, Mertz EL, Kuznetsova NV, Sutter MB, DeRidder AM, Cabral WA, et al. Structural heterogeneity of type I collagen triple helix and its role in osteogenesis imperfecta. *J Biol Chem.* 2008;283:4787-98. (Thermal Stability Studies)
5. Bidanset DJ, Guidry C, Rosenberg LC, Choi HU, Timpl R, Hook M. Binding of the proteoglycan decorin to collagen type VI. *J Biol Chem.* 1992;267:5250-6. (Coat, ECM Interaction Studies)
6. Hocking AM, Strugnell RA, Ramamurthy P, McQuillan DJ. Eukaryotic expression of recombinant biglycan. Post-translational processing and the importance of secondary structure for biological activity. *J Biol Chem.* 1996;271:19571-7. (Coat, ECM Interaction Studies)

In accordance with current Good Manufacturing and Good Laboratory Practices (cGMP/cGLP), any protein of human blood origin should be handled pursuant to your organization's documented safety procedures and as if it is capable of transmitting infection. This product has **NOT** been tested for viral, bacterial, or other infectious agents such as, but not limited to, HIV, HbsAg, and HCV.

TB1270-01  
26-Feb-20

---

**Corporate Offices:** 160 Oxmoor Blvd • Birmingham, AL 35209 • USA **Mailing Address:** P.O. Box 26221 • Birmingham, AL 35260 • USA

**Tel:** 205.945.1774 • U.S. and Canada: 800.722.2255 • **Fax:** 205.945.8768

**Email:** [info@southernbiotech.com](mailto:info@southernbiotech.com) • **Website:** [www.southernbiotech.com](http://www.southernbiotech.com)