

**Anti-Type III Collagen (human, dog, rat, kangaroo)
 Mouse monoclonal antibody**

Subclass: IgG₁/k

PRODUCT NO.

CSI 007-01

Clone: 1E7-D7/Col3

PRESENTATION

Preparation: Protein-A/G purified

Content: Available in 200 µL and 1 mL size. 1 mg/mL +/- 15%. See Certificate of Analysis for details.

Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide

Storage: 4-8°C without exposure to light. No precautions necessary during handling.

ANTIGEN

Type III collagen is present in the walls of arteries, intestines and the uterus, where it strengthens the connective tissue. Patients with defects in the type III collagen (ex. Ehlers-Danlos syndrome) are at risk of rupture of major arteries or the intestine.

IMMUNOGEN

Acid-digested pepsin soluble human type III collagen

SPECIFICITY

CSI 007-01 is highly specific for type III collagen. It has been shown to have no cross-reactivity with type I and V collagens by ELISA and immunoblotting. There is no evidence for cross-reactivity with other connective tissue proteins (laminin, fibronectin, elastin).

CSI 007-01 shows reactivity with human, dog, rat and kangaroo type III collagens by ELISA and immunoblotting. The antibody does not show reactivity with calf and sheep type III collagen by ELISA and immunoblotting.

EPI TOPE SPECIFICITY

Epitope is located approximately 100nm from the N-terminal of the molecule

REACTIVITY

CSI 007-01 can be used for detection of collagens by ELISA. CSI 007-01 has been used successfully for immunohistology on frozen unfixed sections of human (3) and kangaroo (4) skin, and of new dog tissue associated with biomaterial implants (2,5). If fixation of tissue is required, acetone or ethanol is recommended.

CULTURE MEDIUM

RPMI 1640 with 10% fetal calf serum

FUSION PARTNER

NS1/1.Ag4.1

IMMUNIZATION

Female SJL/J mice immunized by intraperitoneal injection

APPLICATION

Method	Usability	References
ELISA	Yes	
Immunoblotting	Yes	
Immunohistochemistry	Yes	2,3,4,5,6

REFERENCES

1. Werkmeister JA, Ramshaw JAM (1991) Multiple antigenic determinants on type III collagen. *Biochem J* 274:895-898.
2. Werkmeister JA, Peters DE, Ramshaw JAM (1989) Development of monoclonal antibodies to collagens for assessing host-implant interactions. *J Biomed Mater Res* 23(A3):273-283.
3. Werkmeister JA, Ramshaw JAM (1989) Monoclonal antibodies to collagens for immunofluorescent examination of human skin. *Acta Derm Venereol* 69:399-402.
4. Stephens LJ, Werkmeister JA, Tebb TA, Ramshaw JAM (1991) Identification of type III collagen from kangaroo skin. *Das Leder* 42:41-44.
5. Werkmeister JA, Glattauer V, Tebb TA, Ramshaw JAM, Edwards GA, Roberts G (1991) Structural stability of long-term implants of a collagen-based vascular prosthesis. *J Long Term Eff Med Implants* 1:107-119
6. www.proteinatlas.org

CONDITIONS

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