

Anti-Type III Collagen (human, dog, rat, kangaroo)

CAT. NO. CSI 007-01

OVERVIEW

Product Name	Anti-Type III Collagen (human, dog, rat, kangaroo)	Conjugation	Unconjugated
Description	Mouse monoclonal antibody	Host	Mouse
Isotype	IgG1/k	Clone	1E7-D7/Col3
Tested Applications	ELISA, WB, IHC		

SPECIFICITY

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). Epitope is located approximately 100nm from the N-terminal of the molecule.		
Immunogen	Acid-digested pepsin soluble human type III collagen	Gene ID	1281, 84032, 478835,
Target	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.		
Species Reactivity POSITIVE	Human, Rat, Dog, Kangaroo	Species Reactivity NEGATIVE	Calf, Sheep

PROPERTIES

Form	Liquid	Unit Size	0,4 mL and 1 mL
Concentration	1 mg/mL ±15%, See CoA for lot details		
Purification	Protein A or Protein G purified	Purification Notes	BSA free
Storage buffer	0.01 M phosphate buffer, pH 7.4, with 0.5 M NaCl and 15 mM sodium azide		
Storage condition	2-8°C without exposure to light		
Safety	Wear protective clothing		

TESTED APPLICATIONS

ELISA	CSI 007-01 can be used for detection of collagens by ELISA.
WB	In immunoblotting CSI 007-01 detects type III collagen only in its native triple helix form.
IHC	CSI 007-01 has been used successfully for immunohistology on frozen unfixed sections of human (1) and kangaroo (2) skin, and of new dog tissue associated with biomaterial implants. (3, 4) If fixation of tissue is required, acetone or ethanol is recommended. (1, 2, 3, 4) Please consult www.proteinatlas.org

SCIENTIFIC REFERENCES

1. Werkmeister JA, Ramshaw JAM (1989) Monoclonal antibodies to collagens for immunofluorescent examination of human skin. Acta Derm Venereol 69:399-402.
2. Stephens LJ, Werkmeister JA, Tebb TA, Ramshaw JAM (1991) Identification of type III collagen from kangaroo skin. Das Leder 42:41-44.
3. 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.
4. Werkmeister JA, Glattauer V, Tebb TA, Ramshaw JAM, Edwards GA, Robets G (1991) Structural stability of long-term implants of a collagen-based vascular prosthesis. J Long Term Eff Med Implants 1:107-119

CONDITIONS

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