



ANTI-COLLAGEN TYPE I MONOCLONAL ANTIBODY CERTIFICATE OF ANALYSIS

CATALOG NUMBER:	MAB3391	QUANTITY:	100 µg
LOT NUMBER:		CONCENTRATION:	1 mg/mL
ALTERNATE NAMES:	COL I	EPITOPE:	C-terminus 1a
CLONE NAME:	5D8-G9	HOST/ISOTYPE:	IgG1k
BACKGROUND:	Collagen occurs in many places throughout the body. The 29 types of collagen have thus far been identified and described in literature. Over 90% of the collagen in the body, however, are of type I, II, III, and IV. Collagen I is the most abundant collagen of the human or animal body. It is present in scar tissue, tendons, skin, artery walls, the endomysium of myofibrils, fibrocartilage, and the organic part of bones and teeth. Collagen I primary structure consists of a trimer of three interwound, self assembling chains. Two alpha-1 and one alpha-2 chains wound together is a long, fibrillar structure.		
SPECIFICITY:	Antibody is specific to collagen type I by immunoblotting when used after <u>non-denaturing acidic PAGE</u> . There is no evidence for cross reactivity with Collagen Types III, V and VI. The specificity towards collagen types and various connective tissues proteins was also examined by a standard ELISA and by a competitive ELISA. The antibody did not cross-react with the non-collagenous proteins human fibronectin, bovine elastin or mouse laminin. Examination of the antibody specificity by immunoblotting after SDS/PAGE gave no response indicating that the clone requires the native triple-helical conformation, and thus the clone will NOT work in traditional reduced westerns.		
IMMUNOGEN:	Purified human type I collagen emulsified with Freund's complete adjuvant.		
APPLICATIONS:	Immunohistochemistry: fresh frozen or acetone fixed sections only Native immunoblotting: see Ramshaw, J et al 1987 Electrophoresis and electroblotting of Native Collagens. Analytical Biochemistry 168:82-87 for method on native, acidic PAGE gels. Such gels are required for antibody reactivity in western blotting for this clone. ELISA: 10 µg/mL detection in direct ELISA. FACS : 1:100 per 10,000 cells {Harle J et al (2001) Ultrasound in Med. & Biol. 27(4):579-586.		
SPECIES REACTIVITY:	Human, Bovine, Ovine, Porcine, Caprine and Canine> Does not react with mouse, rat, guinea pig, squirrel, horse, kangaroo, or chicken collagen I proteins.		
PRESENTATION:	Protein G purified immunoglobulin in 50 mM Tris Acetate, 150 mM NaCl, 0.1% Bronidox.		
STORAGE/HANDLING:	Store antibody in aliquots, tightly sealed at 2° to 8° C; avoid multiple warm and chill cycles. Store product up to expiration date on vial label.		

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Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 μ L or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

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