



# Mouse Anti-Human denatured collagen type-I (RGD motif) Monoclonal antibody, clone XL313 (CABT-L4548)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

The XL313 monoclonal antibody reacts with denatured human and mouse collagen type-I but not native collagen type-I. The antibody reacts with the RGD motif. Collagen is a fibrous multi-chain triple helical protein that exists in numerous forms. Collagen type-I is the most abundant collagen type in the extracellular matrix. Collagen type-I, type-III, collagen type-IV and collagen type-V have been shown to be associated with all pre-existing blood vessels in vivo. Denaturation of the native three-dimensional structure of collagen is thought to expose cryptic regulatory regions that control angiogenesis. The XL313 antibody has been shown to inhibit angiogenesis in chick embryos and enhance the anti-tumor activity of anti-PD-L1 therapy in vivo. XL313 administration has also been shown to inhibit Lewis lung carcinoma tumor growth in C57BL/6 mice (shown in US Patent No: 7588760B2).

<b>Target</b>	Human/Mouse denatured collagen type-I (RGD motif)
<b>Immunogen</b>	Synthetic RGD containing human collagen peptides
<b>Isotype</b>	IgG1, κ
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human, Mouse
<b>Clone</b>	XL313
<b>Purification</b>	Protein G purified. Purity>95%. Determined by SDS-PAGE
<b>Conjugate</b>	Functional Grade

<b>Applications</b>	WB, IF, in vivo administration (see description)
<b>Molecular Weight</b>	150 kDa
<b>Format</b>	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility
<b>Concentration</b>	Lot specific
<b>Size</b>	5 mg
<b>Buffer</b>	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free]
	Endotoxin level: <2EU/mg (<0.002EU/µg). Determined by LAL gel clotting assay
	Related dilution buffer: CABT-LB04
<b>Preservative</b>	None
<b>Storage</b>	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
<b>Ship</b>	Wet ice

## BACKGROUND

<b>Introduction</b>	Collagens are highly conserved throughout evolution and are characterised by an uninterrupted "Glycine X Y" triplet repeat that is a necessary part of the triple helical structure. Type I collagen (95 kDa) is found in bone, cornea, skin and tendon. Mutati
<b>Keywords</b>	COL1A1;collagen, type I, alpha 1;alpha-1 collagen (I);collagen alpha-1 chain;COL1A2;collagen alpha-2(I) chain;alpha 2(I) collagen;alpha-2(1) collagen;alpha-2 type I collagen;collagen alpha 2(I) chain

## GENE INFORMATION

<b>Official Symbol</b>	Collagen Type I
<b>Synonyms</b>	COL1A1; collagen, type I, alpha 1; alpha-1 collagen (I); collagen alpha-1 chain; COL1A2; collagen alpha-2(I) chain; alpha 2(I) collagen; alpha-2(1) collagen; alpha-2 type I collagen; collagen alpha 2(I) chain
<b>References</b>	Ames, J. J., et al. (2016). "Identification of an Endogenously Generated Cryptic Collagen Epitope (XL313) That May Selectively Regulate Angiogenesis by an Integrin Yes-associated Protein (YAP) Mechano-transduction Pathway." <i>J Biol Chem</i> 291(6): 2731-2750.;