

For Research Use Only

Collagen Type I Recombinant antibody, PBS Only (Capture)

Catalog Number: 83752-3-PBS



Basic Information

Catalog Number: 83752-3-PBS	GenBank Accession Number: BC054498	Purification Method: Protein A purification
Size: 100ug , Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 1278	CloneNo.: 240665D2
Source: Rabbit	UNIPROT ID: P08123	
Isotype: IgG	Full Name: collagen, type I, alpha 2	
Immunogen Catalog Number: AG6281	Calculated MW: 1366 aa, 130 kDa	
	Observed MW: 100-160 kDa	

Applications

Tested Applications:
WB, Cytometric bead array, Indirect ELISA

Species Specificity:
human, rat

Product Information

83752-3-PBS targets Collagen Type I as part of a matched antibody pair:

MP00716-1: 83752-3-PBS capture and 83752-1-PBS detection (validated in Cytometric bead array)

MP00716-2: 83752-3-PBS capture and 83752-2-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

Type I collagen, the major structural component of connective tissues such as skin, tendon and bone, is the most abundant and widely expressed collagen in humans (PMID: 7620364; 8645190; 9016532). Type I collagen is a heterotrimer comprising one alpha 2(I) and two alpha 1(I) chains which are encoded by the unlinked loci COL1A2 and COL1A1 respectively. Type I collagen has a molecular mass of about 250-300 kDa, while the alpha 2(I) chain has a molecular weight of about 100-140 kDa. Mutations in COL1A2 gene are associated with osteogenesis imperfecta, Ehlers-Danlos syndrome, idiopathic osteoporosis, and atypical Marfan syndrome. This antibody raised against 1017-1366 aa of human pro-alpha 2 chain of type I collagen can recognize collagen alpha 2(1) chain and C-terminal propeptide of pro-alpha 2(1) chain.

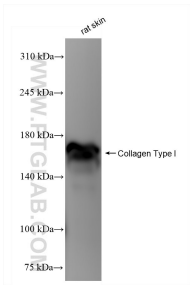
Storage

Storage:
Store at -80°C.
Storage Buffer:
PBS Only

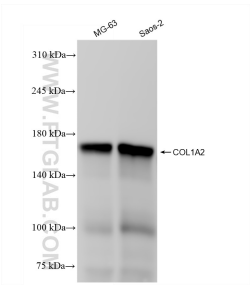
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

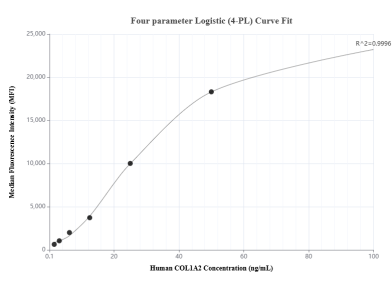
Selected Validation Data



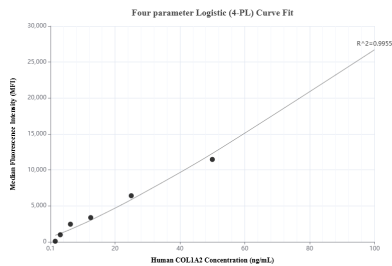
rat skin tissue were subjected to SDS PAGE followed by western blot with 83752-3-RR (Collagen Type I antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83752-3-PBS in a different storage buffer formulation.



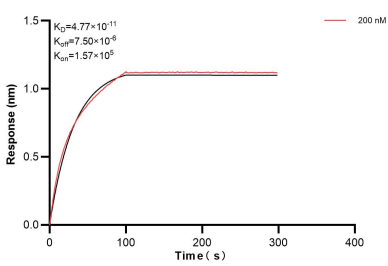
Various lysates were subjected to SDS PAGE followed by western blot with 83752-3-RR (COL1A2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83752-3-PBS in a different storage buffer formulation.



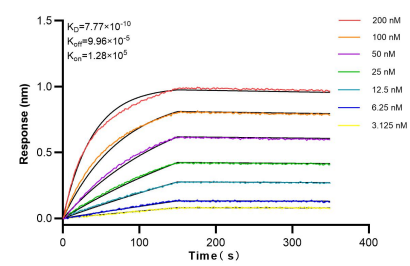
Cytometric bead array standard curve of MP00716-1, Collagen Type I Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83752-3-PBS. Detection antibody: 83752-1-PBS. Standard: Ag6281. Range: 1.56-100 ng/mL.



Cytometric bead array standard curve of MP00716-2, Collagen Type I Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83752-3-PBS. Detection antibody: 83752-2-PBS. Standard: Ag6281. Range: 1.56-100 ng/mL.



Biolayer interferometry (BLI) kinetic assay of 83752-3-PBS against Human Collagen Type I was performed. The affinity constant is 47.7 pM.



Biolayer interferometry (BLI) kinetic assays of 83752-3-RR against Human Collagen Type I were performed. The affinity constant is 0.777 nM.