For Research Use Only

Collagen Type I Recombinant antibody, PBS Only (Capture)

Catalog Number:83752-3-PBS

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Antibodies | ELISA kits | Proteins
Uni-rAb
www.ptglab.com

Basic Information

Catalog Number:
83752-3-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG6281

GenBank Accession Number:
BC054498

GeneID (NCBI):
1278

UNIPROT ID:
P08123

Full Name:
collagen, type I, alpha 2

Calculated MW:
1366 aa, 130 kDa

Observed MW:
100-160 kDa

Purification Method:
Protein A purification

CloneNo.:
240665D2

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

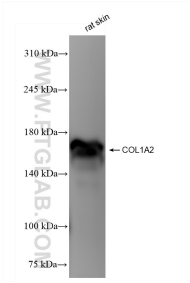
Type I collagen, the major structural component of connective tissues such as skin, tendon and bone, is the most abundant and widely expressed collagen in humans (PMID: 7620364; 8645190; 9016532). Type I collagen is a heterotrimer comprising one alpha 2(I) and two alpha 1(I) chains which are encoded 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

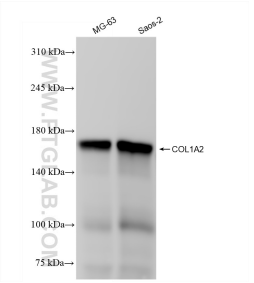
Storage:
Store at -80°C.
Storage Buffer:
PBS Only

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

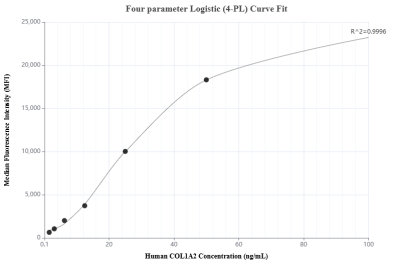
Selected Validation Data



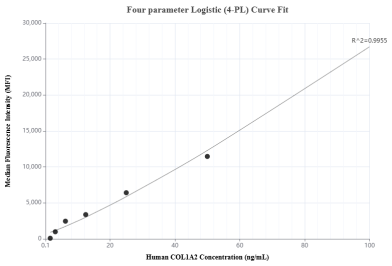
rat skin tissue were subjected to SDS PAGE followed by western blot with 83752-3-RR (COL1A2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83752-3-PBS in a different storage buffer formulation.



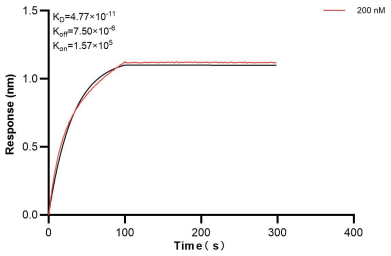
Various lysates were subjected to SDS PAGE followed by western blot with 83752-3-RR (COL1A2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83752-3-PBS in a different storage buffer formulation.



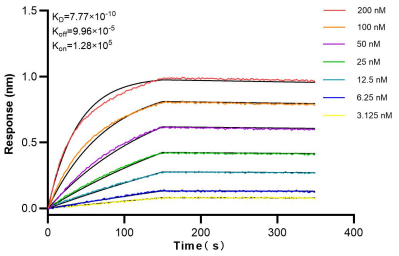
Cytometric bead array standard curve of MP00716-1, Collagen Type I Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83752-3-PBS. Detection antibody: 83752-1-PBS. Standard: Ag6281. Range: 1.56-100 ng/mL.



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.