



# Anti-COL1A1 polyclonal antibody (CPBT-67923RR)

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

## PRODUCT INFORMATION

### Product Overview

This product is specific for both native and heat denatured rat Collagen type I. Collagen is located in the extracellular matrix of connective tissues. It is part of the interacting network of proteoglycans and proteins that provides a structural framework for both soft and calcified connective tissues. Type I collagen (95 kDa) is found in bone, cornea, skin and tendon. Mutations in the encoding gene are associated with osteogenesis imperfecta, Ehlers Danlos syndrome, and idiopathic osteoporosis. Immunohistology It has been reported that this antibody is suitable for use on paraffin embedded formalin fixed sections following treatment with 1 mg/ml pepsin in 0.5 M acetic acid for 2 hours at 37°C and multiple buffer washes.

|                    |                                                                                                                                                            |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specificity        | COLLAGEN I                                                                                                                                                 |
| Immunogen          | Type I Collagen from rat tail tendon                                                                                                                       |
| Isotype            | IgG                                                                                                                                                        |
| Source/Host        | Rabbit                                                                                                                                                     |
| Species Reactivity | Rat                                                                                                                                                        |
| Conjugate          | Unconjugated                                                                                                                                               |
| Applications       | IHC-Fr; ELISA; IF; IHC-P                                                                                                                                   |
| Format             | Purified IgG - lyophilised                                                                                                                                 |
| Size               | 500 µl                                                                                                                                                     |
| Preservative       | None                                                                                                                                                       |
| Storage            | in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. |

# GENE INFORMATION

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|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Name           | <a href="#">Col1a1 collagen, type I, alpha 1 [ Rattus norvegicus (Norway rat) ]</a>                                                                                                                                                                                                     |
| Official Symbol     | COL1A1                                                                                                                                                                                                                                                                                  |
| Synonyms            | COL1A1; collagen, type I, alpha 1; COLIA1; collagen alpha-1(I) chain; alpha-1 type I collagen; type I-alpha 1 collagen; collagen, type 1, alpha 1; procollagen type I, alpha 1; procollagen, type 1, alpha 1; COLLAGEN I;                                                               |
| Entrez Gene ID      | <a href="#">29393</a>                                                                                                                                                                                                                                                                   |
| Protein Refseq      | <a href="#">NP_445756</a>                                                                                                                                                                                                                                                               |
| UniProt ID          | P02466                                                                                                                                                                                                                                                                                  |
| Chromosome Location | 10q31                                                                                                                                                                                                                                                                                   |
| Pathway             | Amoebiasis; Assembly of collagen fibrils and other multimeric structures; Binding and Uptake of Ligands by Scavenger Receptors; Cardiovascular Signaling; Collagen biosynthesis and modifying enzymes; Collagen formation; ECM-receptor interaction; Extracellular matrix organization; |
| Function            | extracellular matrix structural constituent; identical protein binding; metal ion binding; molecular_function; platelet-derived growth factor binding; protein binding;                                                                                                                 |