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BA143 Native Collagen type I (Tail Tendon)

Alternate names: Alpha-1 type I collagen, Alpha-2 type I collagen, COL1A1, COL1A2

Quantity: 0.5 mg

Concentration: 1.0 mg/ml

Background: 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. Mutations in the encoding gene are associated with osteogenesis imperfecta, Ehlers Danlos syndrome, and idiopathic osteoporosis. Reciprocal translocations between chromosomes 17 and 22, where this gene and the gene for Platelet-derived growth factor beta are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans, resulting from unregulated expression of the growth factor.

Uniprot ID: P11087

NCBI: NP_031768

GeneID: 12842

Species: Mouse

Source: Native from Mouse Tail Tendon.

Format:
State: Liquid purified protein.
Purity: >90% pure by SDS PAGE.
Cross linked collagen type I dimers and trimers represent approximately 10%.
Buffer System: 0.5M Acetic Acid without additives.
Preservatives: None
Stabilizers: None

Applications:
ELISA.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Description:
Preparation: Collagens were extracted from washed dissected tissue into dilute acetic acid after mild pepsin treatment. Collagen type I was purified by using differential salt precipitation. Thermal denaturation converts the collagen to gelatin.
Molecular weight: ~300 kDa

Add. Information:
Impurities:
Mouse Collagen type III 10%
Mouse collagen (other types) < 1%
Non-collagenous proteins < 0.5%.

Storage:
Store the antigen undiluted at -20°C only.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Rhodes RK, Miller EJ. Physicochemical characterization and molecular organization of the collagen A and B chains. Biochemistry. 1978 Aug 22;17(17):3442-8. PubMed PMID: 687595.