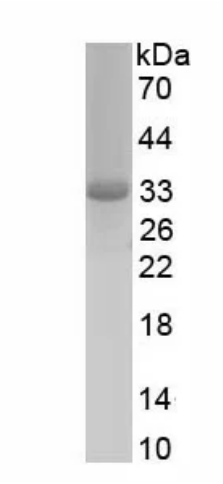
Active Collagen Type I Alpha 2 (COL1a2)

Catalog#:PER12277

概述（Summary）

别称（Alternative Names）	COL1-A2; OI4; Collagen Alpha-2(I)chain; osteogenesis imperfecta type IV; Collagen Of Skin,Tendon And bone,Alpha-2 Chain
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Val1109-Lys1372】
Accession #	P02466
表达宿主（Host）	E.coli
种属（Species）	Rattus norvegicus (Rat)
预测分子量（Predicted MW）	33.2 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

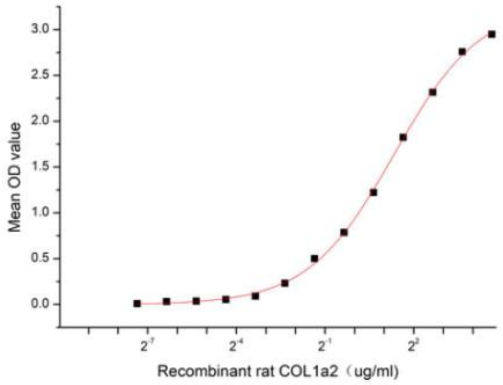


Figure 1. The binding activity of recombinant rat COL1a2 and recombinant human FBN1

Collagen Type I Alpha 2 (COL1a2) is a major component of collagen type I found in skin, bone, muscle, tendons, ligaments and other connective tissues.The COL1a2 protein is essential for the assembly, secretion, and stability of collagen fibers, which are vital for tissue development and repair.Mutations in COL1A2 are associated with a variety of genetic disorders, such as osteogenesis imperfecta (dysplasia of the bones) and cutis laxa. These diseases are often accompanied by weak bones and loss of skin elasticity. Besides, Fibrillin 1 (FBN1) has been identified as an interactor of COL1a2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant rat COL1a2 and recombinant human FBN1. Briefly, COL1a2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to FBN1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-COL1a2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant rat COL1a2 and recombinant human FBN1 was shown in Figure 1, the EC50 for this effect is 2.53 ug/mL.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.