

## Collagen 1 alpha 1 Rabbit monoclonal antibody

Catalog: MB66429

Host: Rabbit

Reactivity: Human

### BackGround:

Type 1 collagen is the most abundant collagen in many human tissues, including bone, skin, and tendons. It is a trimeric complex comprised of two molecules of COL1A1 (alpha-1 type 1 collagen) and one molecule of COL1A2 (alpha-2 type 1 collagen). The expression levels of COL1A1 are regulated by multiple mechanisms, including mRNA stability, translation, and posttranslational modification. Overexpression of COL1A1 has been positively associated with tissue fibrosis disorders, including systemic sclerosis, while loss-of-function mutations in the COL1A1 gene are a major causative factor for osteogenesis imperfecta (brittle bone disease). Notably, COL1A1 expression levels have also been associated with tumor development in gastric, lung, thyroid, and breast cancers. Research studies suggest that upregulation of COL1A1 can generate a modified extracellular matrix environment that promotes cancer cell survival, proliferation, metastasis, and invasion.

### Product:

Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA.

### Molecular Weight:

~ 160 kDa

### Swiss-Prot:

P02452

### Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

### Applications:

WB (1/500 - 1/1000), IF/ICC (1/50 - 1/100), IP (1/10 - 1/50)

### Storage&Stability:

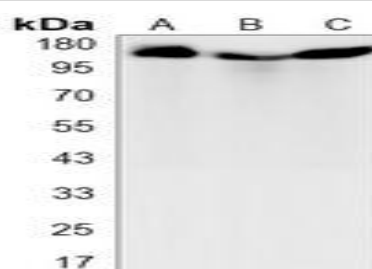
Store at 4 °C short term. Aliquot and store at -20 °C long

term. Avoid freeze-thaw cycles.

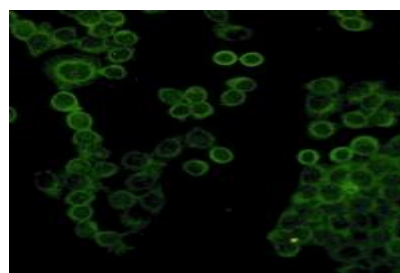
### Specificity:

Recognizes endogenous levels of Collagen 1 alpha 1 protein.

### DATA:



Western blot analysis of Collagen 1 alpha 1 expression in A549 (A), HL60 (B), U2OS (C) whole cell lysates.



Immunofluorescent analysis of Collagen 1 alpha 1 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark.

### Note:

For research use only, not for use in diagnostic procedure.

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