

Collagen 1 alpha 1 polyclonal antibody

Catalog: BS67771

Host: Rabbit

Reactivity: Human, Mouse, Rat

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 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 150 kDa

Swiss-Prot:

P02452

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200), IF/ICC (1/50 - 1/200), IP (1/50 - 1/100)

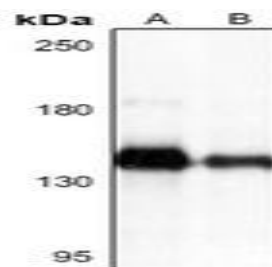
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

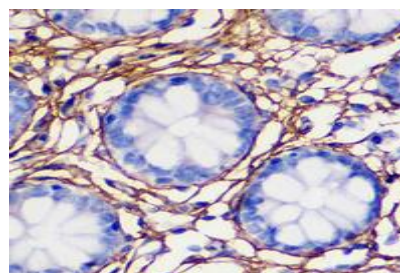
Specificity:

Recognizes endogenous levels of Collagen 1 alpha 1 protein.

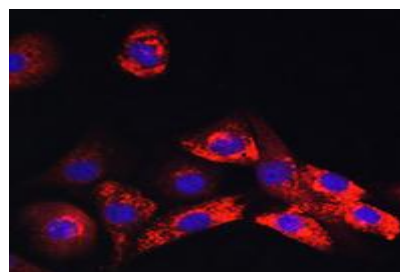
DATA:



Western blot analysis of Collagen 1 alpha 1 expression in mouse spleen (A), rat lung (B) whole cell lysates.



Immunohistochemical analysis of Collagen 1 alpha 1 staining in human lung formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Collagen 1 alpha 1 staining in NIH3T3 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

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PRODUCT DATA SHEET

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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 AF594-conjugated

secondary antibody (red) in PBS at room temperature in the dark.

Note:

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

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