



# MMP-13 Polyclonal Antibody

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>         | BYab-02680                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Isotype</b>            | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Reactivity</b>         | Human;Rat;Mouse;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Applications</b>       | WB;IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Gene Name</b>          | MMP13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Protein Name</b>       | Collagenase 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human MMP-13. AA range:10-59                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Specificity</b>        | MMP-13 Polyclonal Antibody detects endogenous levels of MMP-13 protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>             | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Purification</b>       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Dilution</b>           | Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. IF 1:100-300<br>Not yet tested in other applications.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Concentration</b>      | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>             | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage Stability</b>  | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Synonyms</b>           | MMP13; Collagenase 3; Matrix metalloproteinase-13; MMP-13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Observed Band</b>      | 55kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Cell Pathway</b>       | Secreted, extracellular space, extracellular matrix . Secreted .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Tissue Specificity</b> | Detected in fetal cartilage and calvaria, in chondrocytes of hypertrophic cartilage in vertebrae and in the dorsal end of ribs undergoing ossification, as well as in osteoblasts and periosteal cells below the inner periosteal region of ossified ribs. Detected in chondrocytes from in joint cartilage that have been treated with TNF and IL1B, but not in untreated chondrocytes. Detected in T lymphocytes. Detected in breast carcinoma tissue.                                                                                             |
| <b>Function</b>           | cofactor: Binds 2 zinc ions per subunit.,cofactor: Binds 4 calcium ions per subunit.,disease: Defects in MMP13 are the cause of spondyloepimetaphyseal dysplasia type 2 (SEMD2) [MIM:602111]; also known as spondyloepimetaphyseal dysplasia type Missouri. SEMDs are a heterogeneous group of skeletal disorders characterized by defective growth and modeling of the spine and long bones. The SEMDs are distinguished from the spondylometaphyseal dysplasias and the spondyloepiphyseal dysplasias by the combined involvement of the epiphyses |

**Nanjing BYabscience technology Co.,Ltd**



and metaphyses. The 3 disorders have malformations of the vertebrae in common.,domain:The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.,function:Degrades collagen type I. Does not act on gelati

**Background**

This gene encodes a member of the peptidase M10 family of matrix metalloproteinases (MMPs). Proteins in this family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. The encoded preproprotein is proteolytically processed to generate the mature protease. This protease cleaves type II collagen more efficiently than types I and III. It may be involved in articular cartilage turnover and cartilage pathophysiology associated with osteoarthritis. Mutations in this gene are associated with metaphyseal anadysplasia. This gene is part of a cluster of MMP genes on chromosome 11. [provided by RefSeq, Jan 2016],

**matters needing attention**

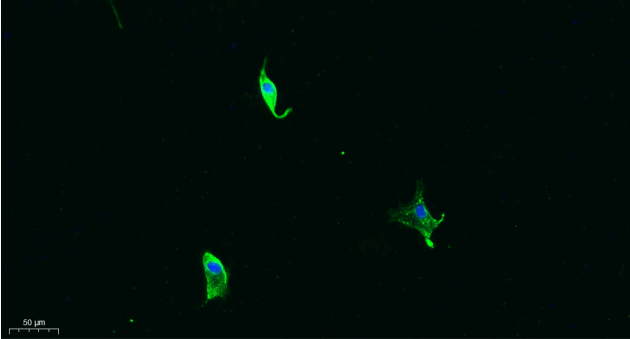
Avoid repeated freezing and thawing!

**Usage suggestions**

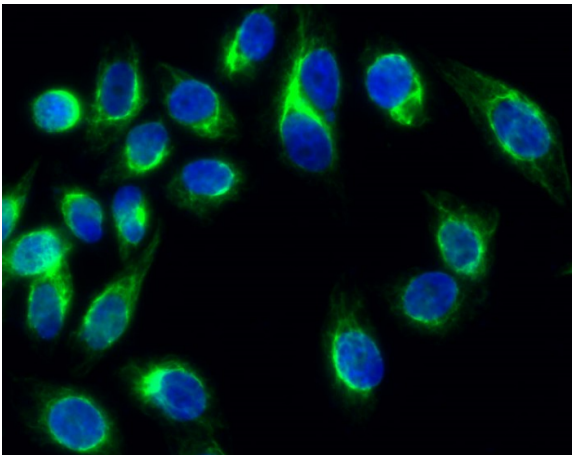
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



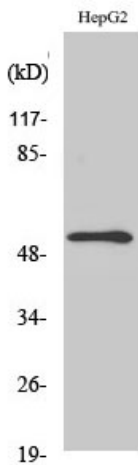
## Products Images



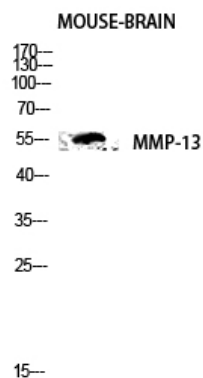
Immunofluorescence analysis of A549. 1, primary Antibody was diluted at 1:200 (4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 488 Secondary antibody was diluted at 1:1000 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min.



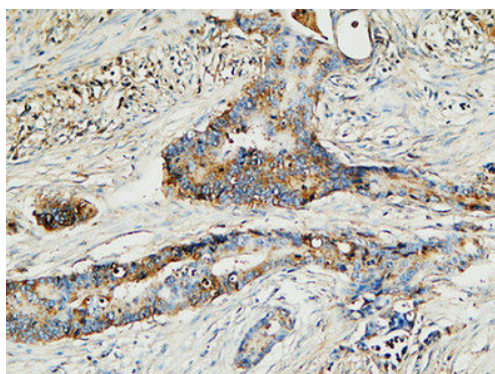
Immunofluorescence analysis of HeLa cell. 1, MMP-13 Polyclonal Antibody (green) was diluted at 1:200 (4°C overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog: RS3211 was diluted at 1:1000 (room temperature, 50min). 3 DAPI (blue) 10min.



Western Blot analysis of various cells using MMP-13 Polyclonal Antibody diluted at 1:500



Western blot analysis of mouse-brain lysis using MMP-13 antibody. Antibody was diluted at 1:500



Immunohistochemical analysis of paraffin-embedded Human Colon cancer. 1, Antibody was diluted at 1:100(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200(room temperature, 30min).