

Summary

Performance

| Conjugation | Unconjugated | |
|--------------|--|--|
| Modification | Unmodified | |
| lsotype | IgG | |
| Clonality | Monoclonal | |
| Form | Liquid | |
| Storage | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. | |
| Buffer | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New typepreservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term.Avoid freeze / thaw cycle. | |
| Purification | Affinity purification | |

Immunogen

| Gene Name | MMP13 |
|-------------------|---|
| Alternative Names | CLG3; matrix metalloproteinase 13 (collagenase 3); MMP13; |
| Gene ID | 4322.0 |
| SwissProt ID | P45452. |

Application

| Dilution Ratio | WB 1:500-1:2000 |
|------------------|-----------------|
| Molecular Weight | 54kDa |

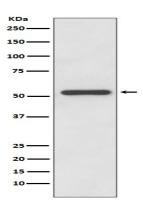


Background

Defects in MMP13 are the cause of spondyloepimetaphyseal dysplasia Missouri type (SEMD-MO) [MIM:602111]. A bone disease characterized by moderate to severe metaphyseal changes, mild epiphyseal involvement, rhizomelic shortening of the lower limbs with bowing of the femora and/or tibiae, coxa vara, genu varum and pear-shaped vertebrae in childhood. Epimetaphyseal changes improve with age. Plays a role in the degradation of extracellular matrix proteins including fibrillar collagen, fibronectin, TNC and ACAN. Cleaves triple helical collagens, including type I, type II and type III collagen, but has the highest activity with soluble type II collagen. Can also degrade collagen type IV, type XIV and type X. May also function by activating or degrading key regulatory proteins, such as TGFB1 and CCN2. Plays a role in wound healing, tissue remodeling, cartilage degradation, bone development, bone mineralization and ossification. Required for normal embryonic bone development and ossification. Plays a role in the healing of bone fractures via endochondral ossification. Plays a role in wound healing, probably by a mechanism that involves proteolytic activation of TGFB1 and degradation of CCN2. Plays a role in keratinocyte migration during wound healing. May play a role in cell migration and in tumor cell invasion.

Research Area

Image Data



Western blot analysis of MMP13 expression in HeLa cell lysate.

Note

For research use only.