

## DESCRIPTION

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human PCPE-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse PCPE-1 is observed.                                                                                                                 |
| <b>Source</b>             | Monoclonal Rat IgG <sub>1</sub> Clone # 261730                                                                                                                                                                                                                              |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human PCPE-1<br>Gln26-Asp449 (predicted)<br>Accession # Q15113                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunoprecipitation</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Procollagen C-endopeptidase enhancers, known as PCPEs or PCOLCEs, are secreted extracellular matrix glycoproteins that consist of two CUB domains and one NTR domain. They are known to stimulate enzymatic cleavage of procollagens I - III by the BMP-1/tolloid family of metalloproteases, also known as procollagen C-proteinases (1). PCPE-1 is expressed primarily by interstitial connective tissues such as tendons, calvaria, and skin (2). Although BMP-1/tolloid proteinases are involved in processing of multiple extracellular proteins, the enhancer activity of PCPE-1 is specific to procollagens since it has no effect on BMP-1/tolloid cleavage of other substrates (3). It is thought that PCPE-1 enhances cleavage of procollagens by binding to the substrate and inducing a conformation change in the substrate (3), although interaction between PCPE-1 and full-length BMP-1/tolloid proteinases has also been reported (4).

## PRODUCT SPECIFIC NOTICES

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