Human PCPE-1 Antibody

Monoclonal Rat IgG_1 Clone # 261730

Catalog Number: MAB2627

DESCRIPTION

Species Reactivity	Human
Specificity	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.
Source	Monoclonal Rat IgG_1 Clone # 261730
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human PCPE-1 Gln26-Asp449 (predicted) Accession # Q15113
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human PCPE-1
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human PCPE-1, see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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).

References:

1. Steiglitz, B.M. *et al.* (2002) J. Biol. Chem. **277**:49820.
2. Kessler, E. *et al.* (1990) Biochem. Biophys. Res. Commun. **173**:81.
3. Moali, C. *et al.* (2005) J. Biol. Chem. **280**:24188.
4. Ge, G. *et al.* (2006) J. Biol. Chem. **281**:10786.

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