

bs-4913R**[Primary Antibody]****ENPP1 Rabbit pAb****BioSS**
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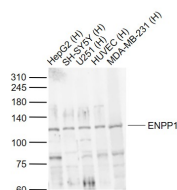
— DATASHEET —**Host:** Rabbit**Isotype:** IgG**Clonality:** Polyclonal**GeneID:** 5167**SWISS:** P22413**Target:** ENPP1**Immunogen:** KLH conjugated synthetic peptide derived from human ENPP1: 41-140/925. < Extracellular >**Purification:** affinity purified by Protein A**Concentration:** 1mg/ml**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: ENPP1 has a broad specificity and cleaves a variety of substrates, including phosphodiester bonds of nucleotides and nucleotide sugars and pyrophosphate bonds of nucleotides and nucleotide sugars. It can hydrolyze nucleoside 5' triphosphates such as ATP, GTP, CTP, TTP and UTP to their corresponding monophosphates with release of pyrophosphate. It can also hydrolyze diadenosine polyphosphates and 3',5'-cAMP to AMP. It may play a role in the regulation of pyrophosphate production, the regulation of the availability of nucleotide sugars in the endoplasmic reticulum and Golgi, and the regulation of purinergic signaling.

The subtilisin-like Prohormone Convertase (PC) family is a group of cellular enzymes that cleave most prohormones and neuropeptide precursors. Numerous other cellular proteins, some viral proteins, and bacterial toxins that are transported by the constitutive secretory pathway are also targeted for maturation by PCs. PC family members share structural similarities, which include a heterogeneous ~10 kDa amino-terminal proregion, a highly conserved ~55 kDa subtilisin-like catalytic domain, and carboxyl-terminal domain that is heterogeneous in length and sequence. These enzymes become catalytically active following proregion cleavage within the appropriate cellular compartment. The subcellular localization of PC family members varies.

Immunolocalization studies show that PC1 is found in the perinuclear region as well as the trans-Golgi network, whereas PC2 can be found in the trans-Golgi network as well as diffusely distributed in the peripheral cytoplasm.

Applications: WB (1:500-2000)**Reactivity:** Human (predicted: Mouse, Rat, Rabbit, Pig, Dog, Horse)**Predicted MW.:** 100 kDa**Subcellular Location:** Cytoplasm**— VALIDATION IMAGES —**

Sample: Lane 1: Human HepG2 cell lysates Lane 2: Human SH-SY5Y cell lysates Lane 3: Human U251 cell lysates Lane 4: Human HUVEC cell lysates Lane 5: Human MDA-MB-231 cell lysates
 Primary: Anti-ENPP1 (bs-4913R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 100 kD Observed band size: 120 kD

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

— SELECTED CITATIONS —

- **[IF=6]** Ida Tomomi. et al. Activation of Nuclear Factor Erythroid 2-Related Factor 2 Transcriptionally Upregulates Ectonucleotide Pyrophosphatase/Phosphodiesterase 1 Expression and Inhibits Ectopic Calcification in Mice. ANTIOXIDANTS-BASEL. 2024 Aug;13(8):896 IF ;Mouse. 10.3390/antiox13080896
- **[IF=2.677]** Wang Qiang. et al. ENPP1 deletion causes mouse osteoporosis via the MKK3/p38 MAPK/PCNA signaling pathway. J ORTHOP SURG RES. 2022 Dec;17(1):1-9 IF, WB ;Mouse. 36243801
- **[IF=2.6]** Gao Zhiqiang. et al. Enpp1 deficiency caused chondrocyte apoptosis by inhibiting AMPK signaling pathway. J ORTHOP SURG RES. 2023 Dec;18(1):1-10 IF ;Mouse. 37370114