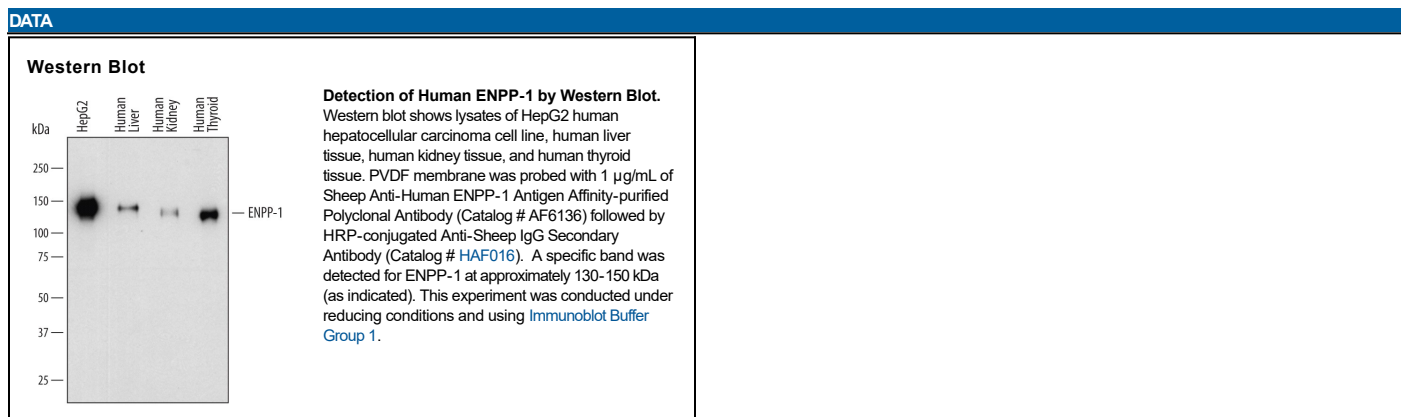


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human ENPP-1 in direct ELISAs and Western blots. In direct ELISAs, less than 3% cross-reactivity with recombinant human ENPP-2 and recombinant mouse ENPP-2 is observed after removal of cross-reactivity with human ENPP-2.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ENPP-2-1-2 Asp49-Trp144 (ENPP-2), Val191-Leu591 (ENPP-1), Asn532-Ile863 (ENPP-2). Cross-reactivity with human ENPP-2 was removed from the final product. Accession # Q13822 (ENPP-2) P22413 (ENPP-1)
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. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below



PREPARATION AND STORAGE	
Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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. <ul style="list-style-type: none"> ● 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

Ectonucleotide pyrophosphatase/phosphodiesterase 1 (ENPP-1) is a transmembrane glycoprotein that hydrolyzes nucleotides and nucleotide derivatives with the formation of nucleotide-5'-monophosphates. It is inserted into the plasma membrane by an N-terminal transmembrane domain. Human ENPP-1 has a small N-terminal cytoplasmic domain and a large C-terminal region containing two somatomedin B-like domains, a catalytic domain and a nuclease-like domain in the extracellular space (1). Defects in the ENPP-1 gene cause arterial calcification and bone mineralization abnormalities (2). ENPP-1 polymorphism or overexpression is also associated with obesity, type II diabetes and insulin resistance, which makes modulation of ENPP-1 activity one of the targets to treat insulin resistance and related diseases (1).

References:

1. Goldfine, I.D. *et al.* (2010) *Endocrine Reviews*. **29**:62.
2. Hessele, L. *et al.* (2002) *Proc. Natl. Acad. Sci.* **99**:9445.