Human ENPP-1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF6136

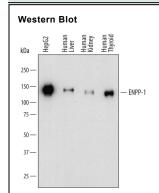
DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human ENPP-1 in direct ELISAs and Western blots. In direct ELISAs, less than 3% cross-reactivity with recombinant human ENPP-2 and recombinant mouse ENPP-2 is observed after removal of cross-reactivity with human ENPP-2.	
Source	Polyclonal Sheep 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-lle863 (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 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	See Below

DATA



Detection of Human ENPP-1 by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, human liver tissue, human kidney tissue, and human thyroid tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human ENPP-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6136) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for ENPP-1 at approximately 130-150 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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.

- 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. Hessle, L. et al. (2002) Proc. Natl. Acad. Sci. 99:9445.

