

DESCRIPTION

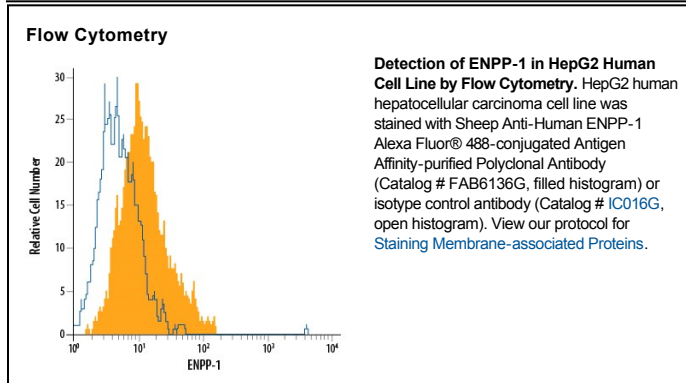
Species Reactivity	Human
Specificity	Detects human ENPP-1 in direct ELISAs and Western blots. In direct ELISAs, less than 3% cross-reactivity with recombinant human ENPP-2 and recombinant mouse ENPP-2 is observed after removal of cross-reactivity with human ENPP-2.
Source	Polyclonal Sheep IgG
Purification	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)
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Flow Cytometry	5 µL/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

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

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.

PRODUCT SPECIFIC NOTICES

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