

ENPP7 Antibody / Ectonucleotide pyrophosphatase/phosphodiesterase 7 Antibody (FY13644)

Catalog No.	Formulation	Size
FY13644	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q6UWV6
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5 ug/ml
Limitations	This ENPP7 Antibody / Ectonucleotide pyrophosphatase/phosphodiesterase 7 Antibody is supplied exclusively for research use.

ENPP7 Antibody by WB in human and mouse samples. Western blot analysis using Ectonucleotide pyrophosphatase/phosphodiesterase 7 Antibody detects a prominent band near 55-60 kDa in the tested lysates. Lane 1 contains Caco-2 cells, lane 2 contains HepG2 cells, lane 3 contains SH-SY5Y cells, lane 4 contains RCH cells, and lane 5 contains mouse small intestine tissue. The figure shows a molecular weight ladder alongside the five sample lanes. A band of comparable apparent size is present across the human cell lines and mouse intestinal sample, supporting detection of an ENPP7-reactive protein under the tested conditions.

ENPP7 Antibody by FCM in fixed Caco-2 cells. Flow cytometry analysis using Ectonucleotide pyrophosphatase/phosphodiesterase 7 Antibody shows a rightward fluorescence shift in the antibody-stained cell population (blue) compared with the isotype control (green) and unstained blank (red). Caco-2 cells were fixed with 4% paraformaldehyde, blocked with normal goat serum, and stained with rabbit anti-ENPP7 antibody followed by a Fluoro488-conjugated anti-rabbit secondary antibody. The histogram represents detection in fixed, permeabilized or otherwise prepared cells and does not establish live-cell surface staining.

Description

ENPP7 Antibody / Ectonucleotide pyrophosphatase/phosphodiesterase 7 Antibody recognizes an enzyme commonly known as alkaline sphingomyelinase. ENPP7 is a member of the ectonucleotide pyrophosphatase/phosphodiesterase family, but its prominent physiological activity involves the hydrolysis of sphingomyelin rather than the nucleotide substrates associated with some other ENPP proteins. The enzyme contributes to lipid digestion at the intestinal surface and has also been studied in relation to local sphingolipid signaling.

Sphingomyelin is a major membrane sphingolipid consisting of a ceramide backbone linked to a phosphocholine headgroup. Hydrolysis by ENPP7 releases ceramide and phosphocholine, changing the chemical form of dietary or luminal sphingomyelin. Ceramide can subsequently enter additional metabolic reactions that generate other sphingolipid species. Because sphingolipids participate in both membrane structure and cell signaling, their local processing may influence more than nutrient absorption alone.

ENPP7 is associated with the intestinal mucosa and operates in a biochemical environment distinct from that of lysosomal acid sphingomyelinase. Its alkaline activity and extracellular orientation suit the processing of sphingomyelin present in the intestinal lumen. The relative contributions of luminal digestion, subsequent metabolite uptake, and signaling effects can vary with dietary composition and intestinal physiology.

Alterations in sphingomyelin metabolism have been investigated in inflammation and colorectal tumor biology, and ENPP7 expression or activity has been examined in these settings. Such associations are biologically plausible because ceramide-related pathways can influence proliferation, differentiation, and apoptosis, but they should not be taken as proof of a uniform protective effect in every context. NSJ Bioreagents offers this ENPP7 Antibody to support investigation of intestinal sphingomyelin hydrolysis and its relationship to sphingolipid metabolism at the mucosal surface. ENPP7 exemplifies how extracellular lipid-processing enzymes can connect digestion with the regulation of bioactive lipid pools.

Explore related research targets in our [Metabolism Antibody / Metabolism Antibodies](#) collection.

Application Notes

Users should optimize the working dilution of the ENPP7 Antibody / Ectonucleotide pyrophosphatase/phosphodiesterase 7 Antibody for their specific experimental setup.

Immunogen

The ENPP7 Antibody was generated using e. coli-derived human ENPP7 recombinant protein (amino acids N44-S372).

Storage

Once reconstituted, refrigerate the ENPP7 Antibody at 4°C for no longer than one month. For extended storage, freeze aliquots at -20°C for up to six months and avoid repeated freeze-thaw cycles.

Alternate Names

ENPP7 antibody, Ectonucleotide pyrophosphatase/phosphodiesterase family member 7 antibody, ectonucleotide pyrophosphatase/phosphodiesterase 7 antibody, Alkaline sphingomyelin phosphodiesterase antibody, Alk-SMase antibody, EC:3.1.4.12 antibody, E-NPP 7 antibody

