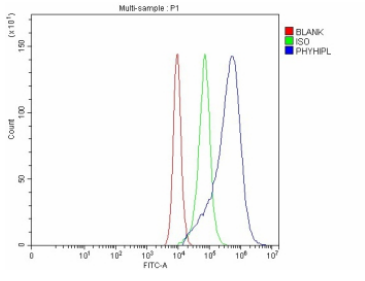
PHYHIPL Antibody / Phytanoyl-CoA hydroxylase-interacting protein-like (FY12653)

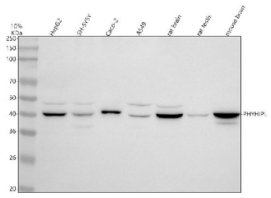
Catalog No.	Formulation	Size
FY12653	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q96FC7
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This PHYHIPL antibody is available for research use only.



Flow Cytometry analysis of CACO-2 cells using anti-PHYHIPL antibody. Overlay histogram showing CACO-2 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PHYHIPL antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of PHYHIPL using anti-PHYHIPL antibody. Lane 1: human HepG2 whole cell lysates, Lane 2: human SH-SY5Y whole cell lysates, Lane 3: human Caco-2 whole cell lysates, Lane 4: human whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat testis tissue lysates, Lane 7: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PHYHIPL antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. Western blot analysis of PHYHIPL using anti-PHYHIPL antibody. A major band is observed at ~40 kDa corresponding to the canonical isoform, with an additional higher-molecular-weight band at ~48 kDa consistent with reported post-translationally modified and alternative isoform forms of PHYHIPL.

Description

PHYHIPL antibody detects Phytanoyl-CoA hydroxylase-interacting protein-like, a poorly characterized cytoplasmic protein implicated in neuronal signaling and lipid metabolism. Although its precise biochemical function remains under investigation, PHYHIPL is thought to participate in protein-protein interactions related to peroxisomal fatty acid metabolism and neurodevelopmental regulation. The PHYHIPL antibody is used in neuroscience and metabolic studies to explore neuronal protein networks and lipid homeostasis.

PHYHIPL is encoded by the PHYHIPL gene located on human chromosome 10p12.2. The protein is approximately 148 amino acids long and shows sequence similarity to PHYHIP, which interacts with phytanoyl-CoA hydroxylase, an enzyme involved in alpha-oxidation of branched-chain fatty acids. PHYHIPL is expressed in the brain, liver, and heart, suggesting a broader metabolic role than its paralog.

The PHYHIPL antibody detects a 16 kilodalton protein by western blot and displays diffuse cytoplasmic staining under immunofluorescence microscopy. Although the functional data are limited, PHYHIPL has been linked to neuronal differentiation, axonal growth, and synaptic organization through proteomic analyses. It may serve as an adaptor or scaffolding molecule connecting lipid metabolism enzymes with cytoskeletal or signaling components.

Transcriptomic studies reveal that PHYHIPL expression is enriched in developing neural tissues and reduced in neurodegenerative diseases, indicating potential roles in brain maturation and protection. It has also been identified as a candidate biomarker in studies of metabolic syndromes and cardiovascular disease due to altered expression in lipid-related pathways.

Because PHYHIPL likely integrates metabolic and neuronal processes, it serves as a promising research target for understanding how lipid metabolism supports neural function. NSJ Bioreagents provides a validated PHYHIPL antibody optimized for its applications, supporting research into lipid regulation, brain development, and cellular metabolism.

Application Notes

Optimal dilution of the PHYHIPL antibody should be determined by the researcher.

Immunogen

E.coli-derived human PHYHIPL recombinant protein (Position: M1-D336) was used as the immunogen for the PHYHIPL antibody.

Storage

After reconstitution, the PHYHIPL antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.