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PNPLA2 Recombinant Monoclonal Antibody

Product Code	CSB-RA111385A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q96AD5
Immunogen	A synthesized peptide derived from Human PNPLA2
Species Reactivity	Human
Tested Applications	ELISA, FC; Recommended dilution: FC:1:50-1:200
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer?Cardiovascular;Metabolism;Signal transduction
Gene Names	PNPLA2
Clone No.	1H6

Image



Overlay Peak curve showing HepG2 cells stained with CSB-RA111385A0HU (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific proteinprotein interactions followed by the antibody (1µg/1*10⁶cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Antirabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was rabbit IgG (1µg/1*10⁶cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

A recombinant monoclonal antibody against PNPLA2 was generated through a series of steps, beginning with the immunization of a rabbit using a synthesized peptide derived from human PNPLA2 protein. Subsequently, B cells were isolated from the immunized rabbit, and RNA was extracted from these cells. The extracted RNA was reverse-transcribed into cDNA, which served as a template for extending PNPLA21 antibody genes using degenerate primers. These engineered PNPLA2 antibody genes were incorporated into a plasmid

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vector and introduced into host cells for expression. The PNPLA2 recombinant monoclonal antibody was then isolated from the cell culture supernatant via affinity chromatography and assessed for its suitability in ELISA and FC applications. It only recognizes human PNPLA2 protein.

PNPLA2/ATGL is a key enzyme involved in the hydrolysis of stored triglycerides, contributing to energy homeostasis, lipid metabolism, and the regulation of adipose tissue function. Its activity is tightly regulated and plays a crucial role in maintaining metabolic health.