ARG42374
anti-PCLO antibody [PCLO-01]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [PCLO-01] recognizes PCLO
Tested Reactivity	Hu
Tested Application	FACS, WB
Specificity	The mouse monoclonal antibody PCLO-01 recognizes PCLO (Piccolo), a more than 400 kDa multidomain protein expressed mainly in the presynaptic cytoplasmatic matrix of the neurons.
Host	Mouse
Clonality	Monoclonal
Clone	PCLO-01
Isotype	IgG1
Target Name	PCLO
Species	Human
Immunogen	Human recombinant PCLO protein.
Conjugation	Un-conjugated
Alternate Names	ACZ; Protein piccolo; PCH3; Aczonin

Application Instructions

Application table

Application	Dilution
FACS	1 - 5 µg/ml
WB	Assay-dependent

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

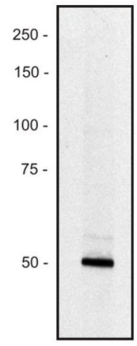
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS and 15 mM Sodium azide.
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	PCLO
Gene Full Name	piccolo presynaptic cytomatrix protein
Background	The protein encoded by this gene is part of the presynaptic cytoskeletal matrix, which is involved in establishing active synaptic zones and in synaptic vesicle trafficking. Variations in this gene have been associated with bipolar disorder and major depressive disorder. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]
Function	Scaffold protein of the presynaptic cytomatrix at the active zone (CAZ) which is the place in the synapse where neurotransmitter is released (By similarity). After synthesis, participates in the formation of Golgi-derived membranous organelles termed Piccolo-Bassoon transport vesicles (PTVs) that are transported along axons to sites of nascent synaptic contacts (By similarity). At the presynaptic active zone, regulates the spatial organization of synaptic vesicle cluster, the protein complexes that execute membrane fusion and compensatory endocytosis (By similarity). Organizes as well the readily releasable pool of synaptic vesicles and safeguards a fraction of them to be not immediately available for action potential-induced release (By similarity). Functions also in processes other than assembly such as the regulation of specific presynaptic protein ubiquitination by interacting with SIAH1 or the regulation of presynaptic autophagy (By similarity). Mediates also synapse to nucleus communication leading to reconfiguration of gene expression by associating with the transcriptional corepressor CTBP1 and by subsequently reducing the size of its pool available for nuclear import (By similarity). [UniProt]
Calculated Mw	561 kDa
Cellular Localization	Cell junction, synapse. Note=Concentrated at the presynaptic side of synaptic junctions. [UniProt]

Images



Human REH erythroid cell

ARG42374 anti-PCLO antibody [PCLO-01] WB image

Western blot: Human REH erythroid cell line lysate (1% laurylmaltoside), stained with ARG42374 anti-PCLO antibody [PCLO-01] with HRP conjugate, under non-reducing conditions.

The zone evidently corresponds to a small splice variant of the PCLO protein present in this type of cell (see UniProt database, Genome Res. 14:2121-2127(2004)); the major form (over 500 kDa) expressed in neurons is too large for analysis by Western blotting.