ARG54014
anti-Pyruvate Dehydrogenase E1 alpha subunit antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes Pyruvate Dehydrogenase E1 alpha subunit
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	Pyruvate Dehydrogenase E1 alpha subunit
Species	Human
Immunogen	Purified recombinant human Pyruvate Dehydrogenase protein fragments expressed in E.coli.
Conjugation	Un-conjugated
Alternate Names	Pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial; PHE1A; EC 1.2.4.1; PDHE1-A type I; PDHCE1A; PDHAD; PDHA

Application Instructions

Application table

Application	Dilution
ICC/IF	1:100
WB	1:1000

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

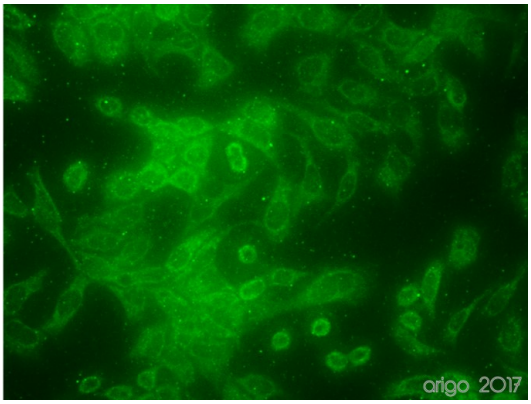
Properties

Form	Liquid
Purification	Affinity purified
Buffer	0.1M Tris-Glycine (pH 7.4), 150 mM NaCl, 0.2% Sodium azide and 50% Glycerol
Preservative	0.2% Sodium azide
Stabilizer	50% Glycerol
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. 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

Database links	GeneID: 18597 Mouse GeneID: 5160 Human Swiss-port # P08559 Human Swiss-port # P35486 Mouse
Gene Symbol	PDHA1
Gene Full Name	pyruvate dehydrogenase (lipoamide) alpha 1
Background	The pyruvate dehydrogenase complex catalyzes the overall conversion of pyruvate to acetyl-CoA and CO(2). It contains multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3).
Function	The pyruvate dehydrogenase complex catalyzes the overall conversion of pyruvate to acetyl-CoA and CO(2), and thereby links the glycolytic pathway to the tricarboxylic cycle. [UniProt]
Research Area	Cancer antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	43 kDa
PTM	Phosphorylation at Ser-232, Ser-293 and Ser-300 by PDK family kinases inactivates the enzyme; for this phosphorylation at a single site is sufficient. Dephosphorylation at all three sites, i.e. at Ser-232, Ser-293 and Ser-300, is required for reactivation. Acetylation alters the phosphorylation pattern. Deacetylated by SIRT3 (By similarity).
Cellular Localization	Mitochondrion matrix

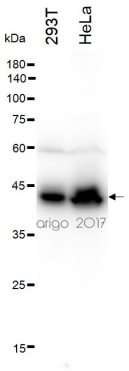
Images



ARG54014 anti-Pyruvate Dehydrogenase E1 alpha subunit antibody ICC/IF image

Immunofluorescence: 100% Methanol fixed (RT, 10 min) HeLa cells stained with ARG54014 anti-Pyruvate Dehydrogenase E1 alpha subunit antibody (green) at 1:100 dilution.

Secondary antibody: ARG55393 Goat anti-Mouse IgG (H+L) antibody (FITC)



ARG54014 anti-Pyruvate Dehydrogenase E1 alpha subunit antibody WB image

Western blot: 30 µg of 293T and HeLa cell lysates stained with ARG54014 anti-Pyruvate Dehydrogenase E1 alpha subunit antibody at 1:1000 dilution.