ARG66326
anti-COX4 antibody [SQab1874]

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

Summary

Product Description	Recombinant Rabbit Monoclonal antibody [SQab1874] recognizes COX4
Tested Reactivity	Hu, Ms, Rat, AGMK, Bov, Chk, Dog, Pig
Tested Application	FACS, ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Monoclonal
Clone	SQab1874
Isotype	IgG
Target Name	COX4
Species	Human
Immunogen	Synthetic peptide around the N-terminus of Human COX IV.
Conjugation	Un-conjugated
Alternate Names	Cytochrome c oxidase polypeptide IV; COX4; COX4-1; COXIV; Cytochrome c oxidase subunit IV isoform 1; COX IV-1; Cytochrome c oxidase subunit 4 isoform 1, mitochondrial

Application Instructions

Application table

Application	Dilution
FACS	1:200 - 1:1000
ICC/IF	1:10 - 1:50
IHC-P	1:200 - 1:400
IP	1:50
WB	1:5000 - 1:10000

Application Note: IHC-P: Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer pH 9.0.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

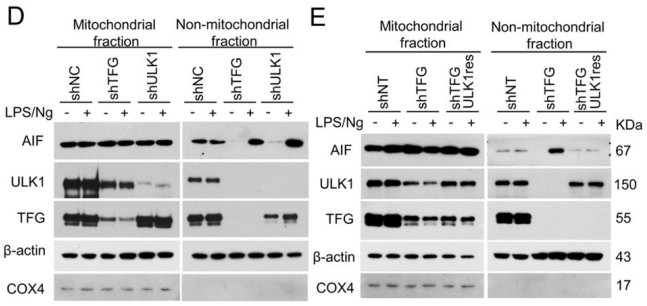
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.
Preservative	0.01% Sodium azide
Stabilizer	40% Glycerol and 0.05% BSA

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

Gene Symbol	COX4I1
Gene Full Name	cytochrome c oxidase subunit IV isoform 1
Background	Cytochrome c oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer and proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit IV isoform 1 of the human mitochondrial respiratory chain enzyme. It is located at the 3' of the NOC4 (neighbor of COX4) gene in a head-to-head orientation, and shares a promoter with it. Pseudogenes related to this gene are located on chromosomes 13 and 14. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]
Function	COX4 protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport. [UniProt]
Research Area	Cancer antibody; Controls and Markers antibody; Metabolism antibody; Signaling Transduction antibody; Loading Control antibody for Cytoplasmic Fractions; Cytochrome-C fractionation Study antibody; Mitochondrial Marker antibody
Calculated Mw	20 kDa

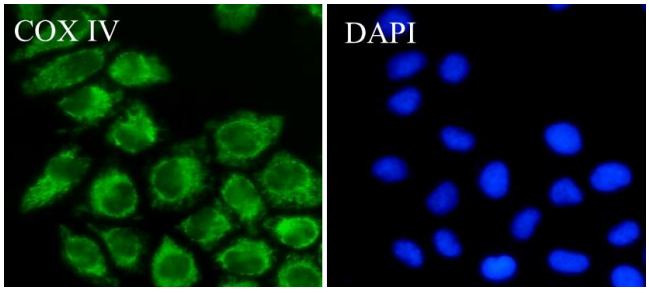
Images



ARG66326 anti-COX4 antibody [SQab1874] WB image

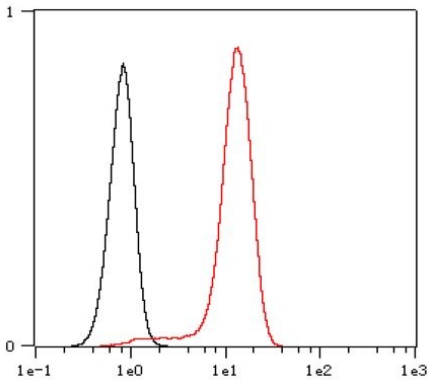
Western blot: THP-1 stained with ARG66326 anti-COX4 antibody [SQab1874].

From Jian-Hong Shi et al. Cell Death Dis- (2022), doi: 10.1038/s41419-022-04539-9, Fig. 8. E.



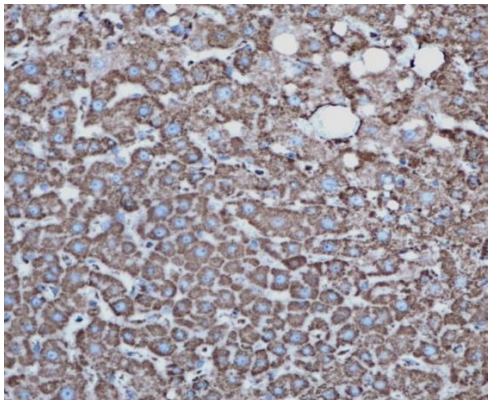
ARG66326 anti-COX4 antibody [SQab1874] ICC/IF image

Immunofluorescence: HeLa cells were fixed with 4% paraformaldehyde for 30 min at RT, permeabilized with 0.1% Triton X-100 for 10 min at RT then blocked with 10% goat serum for 30 min at RT. Cells were stained with ARG66326 anti-COX4 antibody [SQab1874] (green) at 1:50 and 4°C. DAPI (blue) was used as the nuclear counter stain.



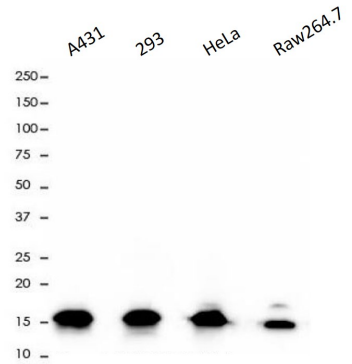
ARG66326 anti-COX4 antibody [SQab1874] FACS image

Flow Cytometry: HeLa cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% TritonX-100 for 15 min. The cells were stained with ARG66326 anti-COX4 antibody [SQab1874] (red) at 1:1,000 dilution in 1x PBS/1% BSA for 30 min at RT, followed by Alexa Fluor® 488 labelled secondary antibody. Unlabelled sample (black) was used as a control.



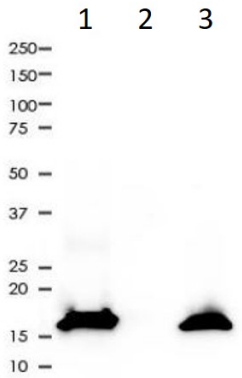
ARG66326 anti-COX4 antibody [SQab1874] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded liver tissue stained with ARG66326 anti-COX4 antibody [SQab1874] at 1:200 dilution. Antigen Retrieval: Heat mediated was performed using Tris/EDTA buffer pH 9.0.



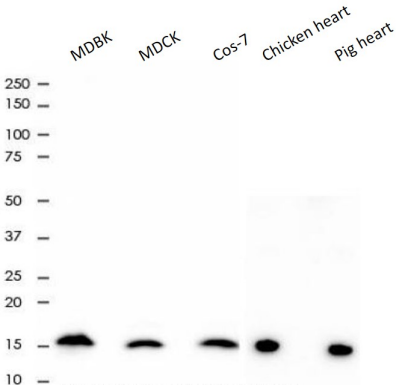
ARG66326 anti-COX4 antibody [SQab1874] WB image

Western blot: 10 µg of A431, 293, HeLa and Raw264.7 cell lysates stained with ARG66326 anti-COX4 antibody [SQab1874] at 1:5000 dilution.



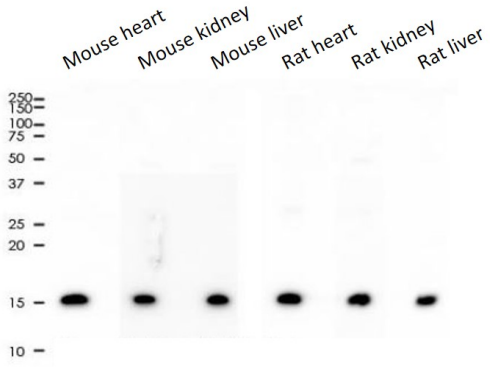
ARG66326 anti-COX4 antibody [SQab1874] IP image

Immunoprecipitation: 0.4 mg of HeLa whole cell lysate immunoprecipitated (1:50) and stained with ARG66326 anti-COX4 antibody [SQab1874]. 1) ARG66326 IP in HeLa whole cell lysate, 2) PBS instead of ARG66326 in HeLa whole cell lysate, and 3) HeLa whole cell lysate, 10 µg (input).



ARG66326 anti-COX4 antibody [SQab1874] WB image

Western blot: 10 µg of MDBK, MDCK, Cos-7, Chicken heart and Pig heart lysates stained with ARG66326 anti-COX4 antibody [SQab1874] at 1:5000 dilution.



ARG66326 anti-COX4 antibody [SQab1874] WB image

Western blot: 2 µg of Mouse heart, Mouse kidney, Mouse liver, Rat heart, Rat kidney and Rat liver lysates stained with ARG66326 anti-COX4 antibody [SQab1874] at 1:5000 dilution.