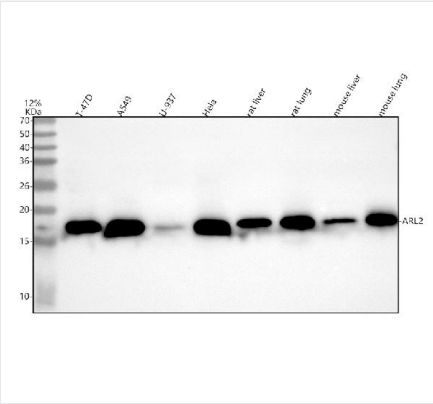
ARL2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

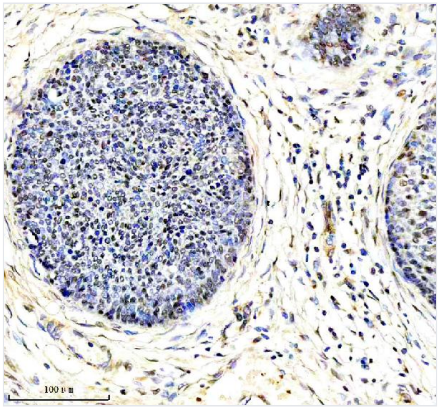
Product Name	ARL2, Polyclonal Antibody
Full Product Name	Anti-ARL2 Antibody Picoband
Product Gene Name	anti-ARL2 antibody
Product Synonym Names	ADP-ribosylation factor-like protein 2; ADP ribosylation factor like GTPase 2; ARL2; ADP-ribosylation factor-like protein 2
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	184
OMIM	601175
3D Structure	ModBase 3D Structure for P36404
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ARL2, which shares 90.9% amino acid (aa) sequence identity with mouse and rat ARL2.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins
Product Categories/Family for anti-ARL2 antibody	Primary Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-ARL2 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS)
Application Notes for anti-ARL2 antibody	WB: 0.25-0.5ug/ml, Human, Mouse, Rat IHC: 2-5ug/ml, Human ICC/IF: 5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human
Related Product Information for anti-ARL2 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-ARL2 antibody	1. Bowzard, J. B., Cheng, D., Peng, J., Kahn, R. A. ELMOD2 is an Arl2 GTPase-activating protein that also acts on Arfs. J. Biol. Chem. 282: 17568-17580, 2007.2. Cai, X.-B., Wu, K.-C., Zhang, X., Lv, J.-N., Jin, G.-H., Xiang, L., Chen, J., Huang, X.-F., Pan, D., Lu, B., Lu, F., Qu, J., Jin, Z.-B. Whole-exome sequencing identified ARL2 as a novel candidate gene for MRCS (microcornea, rod-cone dystrophy, cataract, and posterior staphyloma) syndrome. Clin. Genet. 96: 61-71, 2019.3. Clark, J., Moore, L., Krasinskas, A., Way, J., Battey, J., Tamkun, J., Kahn, R. A. Selective amplification of additional members of the ADP-ribosylation factor (ARF) family: cloning of additional human and Drosophila ARF-like genes. Proc. Nat. Acad. Sci. 90: 8952-8956, 1993.

Other Notes	Small volumes of anti-ARL2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ARL2 purchase	MBS1758462 is an antibody targeting ARL2. Also known as Anti-ARL2 Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



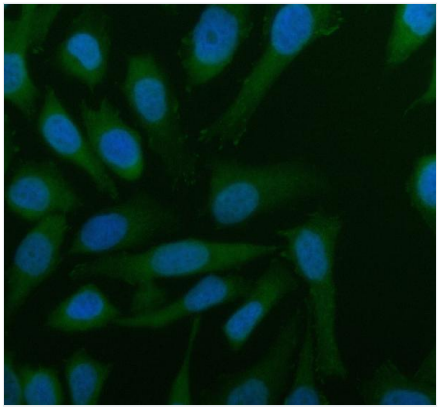
Western Blot (WB) of anti-ARL2 antibody

Figure 1. Western blot analysis of ARL2 using anti-ARL2 antibody (MBS1758462).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human T-47D whole cell lysates,Lane 2: human A549 whole cell lysates,Lane 3: human U-397 whole cell lysates,Lane 4: human Hela whole cell lysates,Lane 5: rat liver tissue lysates,Lane 6: rat lung tissue lysates,Lane 7: mouse liver tissue lysates,Lane 8: mouse lung 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-ARL2 antigen affinity purified polyclonal antibody (#MBS1758462) at 0.5ug/mL overnight at 4 degree C, 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 is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for ARL2 at approximately 18 kDa. The expected band size for ARL2 is at 21 kDa.



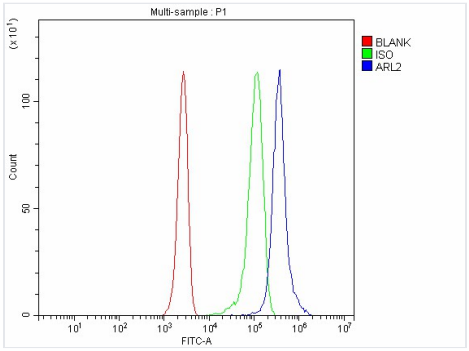
Immunohistochemistry (IHC) of anti-ARL2 antibody

Figure 2. IHC analysis of ARL2 using anti-ARL2 antibody (MBS1758462).ARL2 was detected in a paraffin-embedded section of human cervical cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-ARL2 Antibody (MBS1758462) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (#MBS176453) with DAB as the chromogen.



Immunofluorescence (IF) of anti-ARL2 antibody

Figure 3. IF analysis of ARL2 using anti-ARL2 antibody (MBS1758462).ARL2 was detected in an immunocytochemical section of HELA cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (#MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-ARL2 Antibody (MBS1758462) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG (MBS177405) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-ARL2 antibody

Figure 4. Flow Cytometry analysis of JK cells using anti-ARL2 antibody (MBS1758462).Overlay histogram showing JK cells stained with MBS1758462 (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-ARL2 Antibody (MBS1758462, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ARL2. It may not necessarily be applicable to this product.

NCBI GI #	116241255

NCBI GeneID	402
NCBI Accession #	P36404.4
UniProt Primary Accession #	P36404
UniProt Secondary Accession #	Q9BUK8; G3V184
UniProt Related Accession #	P36404
NCBI Official Full Name	ADP-ribosylation factor-like protein 2
NCBI Official Synonym Full Names	ADP-ribosylation factor-like 2
NCBI Official Symbol	ARL2
NCBI Official Synonym Symbols	ARFL2
UniProt Protein Name	ADP-ribosylation factor-like protein 2
Protein Family	ADP-ribosylation factor-like protein
UniProt Gene Name	ARL2
UniProt Entry Name	ARL2_HUMAN
NCBI Protein Information	ADP-ribosylation factor-like protein 2
NCBI Summary for ARL2	This gene encodes a small GTP-binding protein of the RAS superfamily which functions as an ADP-ribosylation factor (ARF). The encoded protein is one of a functionally distinct group of ARF-like genes. [provided by RefSeq, Jul 2008]
UniProt Comments for ARL2	ARL2: Small GTP-binding protein which cycles between an inactive GDP-bound and an active GTP-bound form, and the rate of cycling is regulated by guanine nucleotide exchange factors (GEF) and GTPase-activating proteins (GAP). GTP-binding protein that does not act as an allosteric activator of the cholera toxin catalytic subunit. Regulates formation of new microtubules and centrosome integrity. Prevents the TBCD-induced microtubule destruction. Participates in association with TBCD, in the disassembly of the apical junction complexes. Antagonizes the effect of TBCD on epithelial cell detachment and tight and adherens junctions disassembly. Together with ARL2, plays a role in the nuclear translocation, retention and transcriptional activity of STAT3. Component of a regulated secretory pathway involved in Ca(2+)-dependent release of acetylcholine. Required for normal progress through the cell cycle. Belongs to the small GTPase superfamily. Arf family. Protein type: G protein, monomeric, ARF; Mitochondrial; G protein, monomeric Chromosomal Location of Human Ortholog: 11q13 Cellular Component: centrosome; mitochondrial intermembrane space; nucleus; lateral plasma membrane Molecular Function: GTPase activity; protein binding; GDP binding; GTP binding; GTPase inhibitor activity Biological Process: tubulin folding; centrosome organization and biogenesis; metabolic process; small GTPase mediated signal transduction; positive regulation of microtubule polymerization; maintenance of protein localization in nucleus; cell cycle; regulation of microtubule polymerization
Research Articles on ARL2	**1.** MiR-195 regulates cell apoptosis in a context-dependent manner through directly targeting ARL2.
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