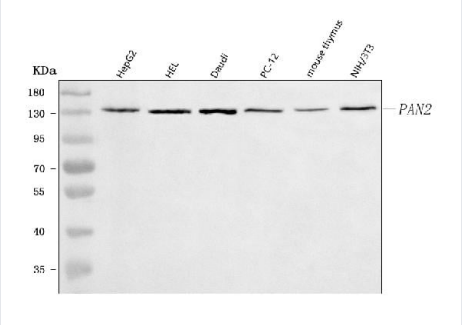
PAN2 Antibody – Rabbit Polyclonal

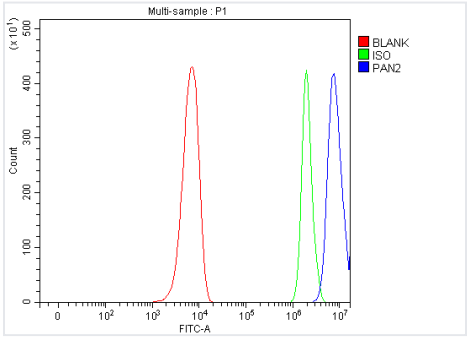
PRODUCT OVERVIEW

Product Name	PAN2, Polyclonal Antibody
Full Product Name	Anti-PAN2 Antibody Picoband
Product Gene Name	anti-PAN2 antibody
Product Synonym Names	AF4/FMR2 family member 4; AF4/FMR2 family member 4; ALL1-fused gene from chromosome 5q31 protein; Protein AF-5q31; Major CDK9 elongation factor-associated protein; AFF4; AF5Q31, MCEF; HSPC092
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.
Specificity	Ubiquitously expressed. StronglyExpressed in heart, placenta, skeletal muscle, pancreas and to a lower extent in brain.
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	135,281 Da
3D Structure	ModBase 3D Structure for Q504Q3
Immunogen	E coli-derived human PAN2 recombinant protein (Position: M1-L356).
Subcellular Localization	Nucleus, Associates to transcriptionally active chromatin but not at snRNA genes.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Key component of the super elongation complex (SEC), a complex required to increase the catalytic rate of RNA polymerase II transcription by suppressing transient pausing by the polymerase at multiple sites along the DNA. In the SEC complex, AFF4 acts as a central scaffold that recruits other factors through interactions with ELL proteins (ELL, ELL2 or ELL3) and the P-TEFb complex. In case of infection by HIV-1 virus, the SEC complex is recruited by the viral Tat protein to stimulate viral gene expression.
Product Categories/Family for anti-PAN2 antibody	Primary Antibodies; Epigenetics and Nuclear Signaling; Transcription; Cell Biology; Transcription Factors; Cell Cycle
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-PAN2 antibody	Western Blot (WB), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-PAN2 antibody	WB: 0.1-0.25ug/ml, Human, Mouse, Rat FC/FACS (Fixed): 1-3ug/1x1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-PAN2 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-PAN2 antibody	1. Bett, J. S., Ibrahim, A. F. M., Garg, A. K., Kelly, V., Pedrioli, P., Rocha, S., Hay, R. T. The P-body component USP52/PAN2 is a novel regulator of HIF1A mRNA stability. Biochem. J. 451: 185-194, 2013. 2. Hartz, P. A. Personal Communication. Baltimore, Md. 04/21/2017.3. Ishikawa, K., Nagase, T., Suyama, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N., Ohara, O. Prediction of the coding sequences of unidentified human genes. X. The complete sequences of 100 new cDNA clones from brain which can code for large proteins in vitro. DNA Res. 5: 169-176, 1998.
Other Notes	Small volumes of anti-PAN2 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 PAN2 purchase	MBS1758434 is an antibody targeting PAN2. Also known as Anti-PAN2 Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-PAN2 antibody
Figure 1. Western blot analysis of PAN2 using anti-PAN2 antibody (MBS1758434).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 HepG2 whole cell lysates,Lane 2: human Hel whole cell lysates,Lane 3: human Daudi whole cell lysates,Lane 4: rat PC-12 whole cell lysates,Lane 5: mouse thymus tissue lysates,Lane 6: mouse NIH/3T3 whole cell 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-PAN2 antigen affinity purified polyclonal antibody (#MBS1758434) at 0.25ug/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 PAN2 at approximately 135 kDa. The expected band size for PAN2 is at 135 kDa.



Flow Cytometry (FC/FACS) of anti-PAN2 antibody
Figure 2. Flow Cytometry analysis of PC-3 cells using anti-PAN2 antibody (MBS1758434).Overlay histogram showing PC-3 cells stained with MBS1758434 (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-PAN2 Antibody (MBS1758434, 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 (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PAN2. It may not necessarily be applicable to this product.

NCBI GI #	261878449
NCBI GeneID	9924
NCBI Accession #	NP_001159751
UniProt Primary Accession #	Q504Q3
UniProt Secondary Accession #	O75189; Q76E12; Q8IVE1
UniProt Related Accession #	Q504Q3
GenBank Nucleotide #	NM_001127460
NCBI Official Full Name	PAB-dependent poly(A)-specific ribonuclease subunit PAN2 isoform 2
NCBI Official Synonym Full Names	PAN2 poly(A) specific ribonuclease subunit
NCBI Official Symbol	PAN2
NCBI Official Synonym Symbols	USP52

UniProt Protein Name	PAB-dependent poly(A)-specific ribonuclease subunit PAN2
UniProt Synonym Protein Names	Inactive ubiquitin carboxyl-terminal hydrolase 52; PAB1P-dependent poly(A)-nuclease; PAN deadenylation complex catalytic subunit 2
Protein Family	PAB-dependent poly(A)-specific ribonuclease
UniProt Gene Name	PAN2
UniProt Synonym Gene Names	hPan2
UniProt Entry Name	PAN2_HUMAN
NCBI Protein Information	PAB-dependent poly(A)-specific ribonuclease subunit PAN2; PAB-dependent poly(A)-specific ribonuclease subunit PAN2; PAB-dependent poly(A)-specific ribonuclease subunit 2; PAB1P-dependent poly(A)-nuclease; PABP-dependent poly(A) nuclease 2; PAN deadenylati
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