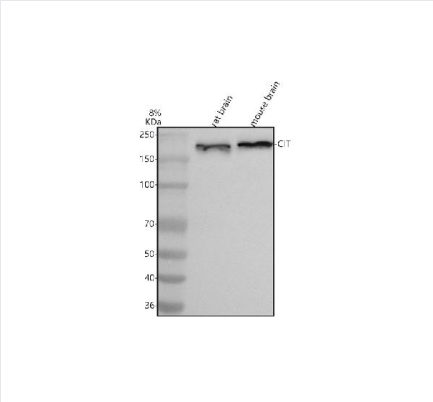
CIT Antibody – Rabbit Polyclonal

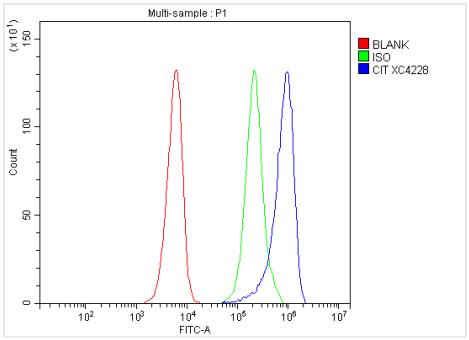
PRODUCT OVERVIEW

Product Name	CIT, Polyclonal Antibody
Full Product Name	Anti-CIT Antibody Picoband
Product Gene Name	anti-CIT antibody
Product Synonym Names	Citron Rho-interacting kinase; citron rho-interacting serine/threonine kinase; CIT; CRIK; KIAA0949; STK21; Citron Rho-interacting kinase; CRIK; EC 2.7.11.1; Serine/threonine-protein kinase 21
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	231,431 Da
Chromosome Location	Chromosome: 12; NC_000012.11 (120123595..120315095, complement). Location: 12q24
OMIM	605629
3D Structure	ModBase 3D Structure for O14578
Immunogen	E coli-derived human CIT recombinant protein (Position: Q470-H1505). Human CIT shares 95.2% and 94.7% amino acid (aa) sequence identity with mouse and rat CIT, respectively.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Cross Reactivity	No cross-reactivity with other proteins
Product Categories/Family for anti-CIT antibody	Primary Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-CIT antibody	Western Blot (WB), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-CIT antibody	WB: 0.25-0.5ug/ml, Human, Mouse, Rat FC/FACS (Fixed): 1-3ug/1x10^6 cells, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-CIT 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-CIT antibody	1. Basit, S., Al-Harbi, K. M., Alhijji, S. A. M., Albalawi, A. M., Alharby, E., Eldardear, A., Samman, M. I. CIT, a gene involved in neurogenic cytokinesis, is mutated in human primary microcephaly. Hum. Genet. 135: 1199-1207, 2016.2. Di Cunto, F., Calautti, E., Hsiao, J., Ong, L., Topley, G., Turco, E., Dotto, G. P. Citron Rho-interacting kinase, a novel tissue-specific ser/thr kinase encompassing the Rho-Rac-binding protein citron. J. Biol. Chem. 273: 29706-29711, 1998.3. Di Cunto, F., Imarisio, S., Hirsch, E., Broccoli, V., Bulfone, A., Migheli, A., Atzori, C., Turco, E., Triolo, R., Dotto, G. P., Silengo, L., Altruda, F. Defective neurogenesis in citron kinase knockout mice by altered cytokinesis and massive apoptosis. Neuron 28: 115-127, 2000.
Other Notes	Small volumes of anti-CIT 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 CIT purchase	MBS1760159 is an antibody targeting CIT. Also known as Anti-CIT Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-CIT antibody
Figure 1. Western blot analysis of CIT using anti-CIT antibody (MBS1760159).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: rat brain tissue lysates,Lane 2: mouse brain 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-CIT antigen affinity purified polyclonal antibody (MBS1760159) 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 CIT at approximately 231 kDa. The expected band size for CIT is at 231 kDa.



Flow Cytometry (FC/FACS) of anti-CIT antibody
Figure 2. Flow Cytometry analysis of SiHa cells using anti-CIT antibody (MBS1760159).Overlay histogram showing SiHa cells stained with MBS1760159 (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-CIT Antibody (MBS1760159, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight®488 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 CIT. It may not necessarily be applicable to this product.

NCBI GI #	332801082
NCBI GeneID	11113
NCBI Accession #	NP_001193928.1
UniProt Primary Accession #	O14578
UniProt Secondary Accession #	Q2M5E1; Q6XUH8; Q86UQ9; Q9UPZ7
UniProt Related Accession #	O14578
GenBank Nucleotide #	NM_001206999.1
NCBI Official Full Name	citron Rho-interacting kinase isoform 1
NCBI Official Synonym Full Names	citron (rho-interacting, serine/threonine kinase 21)
NCBI Official Symbol	CIT

NCBI Official Synonym Symbols	CRIK; STK21
UniProt Protein Name	Citron Rho-interacting kinase
UniProt Synonym Protein Names	Serine/threonine-protein kinase 21
Protein Family	Citron Rho-interacting kinase
UniProt Gene Name	CIT
UniProt Synonym Gene Names	CRIK; KIAA0949; STK21; CRIK
UniProt Entry Name	CTRO_HUMAN
NCBI Protein Information	citron Rho-interacting kinase; serine/threonine-protein kinase 21
NCBI Summary for CIT	This gene encodes a serine/threonine-protein kinase that functions in cell division. Together with the kinesin KIF14, this protein localizes to the central spindle and midbody, and functions to promote efficient cytokinesis. This protein is involved in central nervous system development. Polymorphisms in this gene are associated with bipolar disorder and risk for schizophrenia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2011]
UniProt Comments for CIT	CRIK: an AGC kinase that is a RHO/RAC effector. Binds to the GTP-bound forms of RHO and RAC1. Required for postnatal hippocampal neurogenesis. Rho/CRIK suppresses differentiation and is associated with induction of KyoT1/2, a LIM domain protein gene implicated in integrin-mediated processes and Notch signaling. Plays an important role in the regulation of cytokinesis and the development of the central nervous system. Overexpressed in mantle-cell lymphoma (MCL), an aggressive type of B-cell lymphoma. Three alternatively spliced isoforms have been described. Protein type: Kinase, protein; EC 2.7.11.1; Protein kinase, Ser/Thr (non-receptor); Protein kinase, AGC; AGC group; DMPK family Chromosomal Location of Human Ortholog: 12q24 Cellular Component: ruffle; Golgi cisterna; cell soma; membrane; plasma membrane; vacuole; actin cytoskeleton Molecular Function: protein serine/threonine kinase activity; protein binding; Rho GTPase binding; metal ion binding; SH3 domain binding; ATP binding; PDZ domain binding Biological Process: positive regulation of cytokinesis; mitosis; mitotic sister chromatid segregation; generation of neurons; regulation of catalytic activity; regulation of actin polymerization and/or depolymerization; dendrite development; cytokinesis; spermatogenesis; negative regulation of dendrite morphogenesis; G2/M transition of mitotic cell cycle; Golgi organization and biogenesis; protein amino acid phosphorylation; mitotic metaphase/anaphase transition
Research Articles on CIT	**1.** High CIT expression is associated with prostate cancer.
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