

Datasheet: TZA0138GA

BATCH NUMBER 64749184

Description:	MOUSE ANTI HUMAN CD117
Specificity:	CD117
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	rA21B21-03/4H3-2
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified recombinant IgG containing a SpyTag at the C-terminus of the antibody heavy chain – liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Source	CHO cells
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Immunogen Recombinant CD117 Gln26-Pro524 expressed by mammalian cells

**External Database
Links**

UniProt:

[P10721](#)

[Related reagents](#)

Entrez Gene:

[3815](#)

KIT

[Related reagents](#)

Specificity

Mouse anti Human CD117 antibody, clone rA21B21-03/4H3-2, is a recombinant monoclonal antibody that recognizes CD117, also known as cKIT and mast/stem cell growth factor receptor (SCFR).

CD117 is a member of the type III tyrosine kinase receptor family. It is expressed on hematopoietic stem cells (approx. 70% of CD34+ cells in normal bone marrow are CD117+), germ cells and early hematopoietic progenitors. While expression is lost in some cases during cellular differentiation, it is maintained on mature melanocytes and mast cells. CD117 acts as a cell-surface receptor for stem cell factor (SCF), in response to which it can activate several signalling pathways involved in regulating cell differentiation, chemotaxis, apoptosis, cell adhesion and proliferation. The downstream pathways regulated by CD117 include the JAK/STAT, RAS/MAP kinase, PI3 kinase, and SRC signaling pathways.

Antibodies against CD117 are often used as part of a panel for immunophenotyping acute myeloid leukemia (AML). CD117 is expressed in many aggressive cancers and is an indicator of poor survival in patients. In non-small cell lung cancer (NSCLC) it has been highlighted as a potential marker for predicting the prognosis of patients, with CD117-positive cell populations linked to a shorter relapse-free survival rate. In mastocytosis, up to 80% of malignant cells are found to have a mutation in CD117.

Flow Cytometry

Use 5µl of the suggested working dilution to label 0.5×10^6 cells in 100µl. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application.

Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee

12 months from date of despatch

Acknowledgements

This product and/or its use is covered by claims of U.S. patents, and/or pending U.S. and non-U.S. patent applications owned by or under license to Bio-Rad Laboratories, Inc. See bio-rad.com/en-us/trademarks for details.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
<https://www.bio-rad-antibodies.com/SDS/TZA0138GA>

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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