

# CD117 (c-Kit) Monoclonal Antibody (ACK2), Super Bright™ 702, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2b, kappa
Recommended Isotype Control	Rat IgG2b kappa Isotype Control (eB149/10H5), Super Bright™ 702, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	ACK2
Conjugate	Super Bright™ 702
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2734866

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	3 Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	0.5 µg/test	1 Publication

## Product Specific Information

Description: The ACK2 monoclonal antibody reacts with mouse CD117, also known as c-Kit receptor, Steel factor receptor and stem cell factor receptor. A member of the tyrosine kinase receptor family, this 145 kDa molecule is expressed by a majority of hematopoietic progenitor cells characterized in the mouse bone marrow as a small subset of cells positive for Sca-1 and Thy1 (Thy1<sup>lo</sup>) and negative for lineage markers. The interaction of the mouse c-kit receptor and steel factor promotes the proliferation and differentiation of hematopoietic progenitor cells. CD117 is also expressed by mast cells and plays a role in signaling and activation of these cells. ACK2 has been reported to be a blocking antibody.

Applications Reported: This ACK2 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This ACK2 antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This may be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

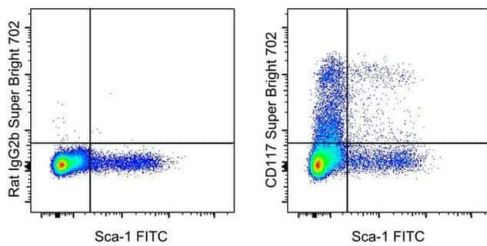
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 702 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD117 (c-Kit) Monoclonal Antibody (ACK2), Super Bright™ 702, eBioscience™



### CD117 (c-Kit) Antibody (67-1172-82) in Flow

C57BL/6 mouse bone marrow cells were stained with Sca-1 Monoclonal Antibody, FITC (Product # 11-5981-82) and 0.25  $\mu$ g of Rat IgG2b kappa Isotype Control, Super Bright 702 (Product # 67-4031-82) (left) or 0.25  $\mu$ g of CD117 Monoclonal Antibody, Super Bright 702 (right). Cells in the Lineage low/negative gate were used for analysis

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 5 References

### Immunohistochemistry (3)

#### Scientific reports

#### Fish telocytes and their relation to rodlet cells in ruby-red-fin shark (rainbow shark) *Epalzeorhynchus frenatum* (Teleostei: Cyprinidae).

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 67-1172-82) in Immunohistochemistry"  
Authors: Abd-Elhafeez HH, Abdo W, Kamal BM, Soliman SA

Year  
2020

#### Scientific reports

#### Morphological and immunohistochemical phenotype of TCs in the intestinal bulb of Grass carp and their potential role in intestinal immunity.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 67-1172-82) in Immunohistochemistry"  
Authors: Abd-Elhafeez HH, Abou-Elhamd AS, Soliman SA

Year  
2020

[View more IHC references on thermofisher.com](#)

### Immunocytochemistry (1)

#### Journal of cellular biochemistry

#### Hsd3b2 associated in modulating steroid hormone synthesis pathway regulates the differentiation of chicken embryonic stem cells into spermatogonial stem cells.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 67-1172-82) in Immunocytochemistry"  
Authors: Zhang C, Wang M, He N, Ahmed MF, Wang Y, Zhao R, Yu X, Jin J, Song J, Zuo Q, Zhang Y, Li B

Year  
2018

### Flow Cytometry (1)

#### Nature communications

#### The lysophospholipase D enzyme Gdgd3 is required to maintain chronic myelogenous leukaemia stem cells.

"Published figure using CD117 (c-Kit) monoclonal antibody (Product # 67-1172-82) in Flow Cytometry"  
Authors: Naka K, Ochiai R, Matsubara E, Kondo C, Yang KM, Hoshii T, Araki M, Araki K, Sotomaru Y, Sasaki K, Mitani K, Kim DW, Ooshima A, Kim SJ

Year  
2020

### More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.