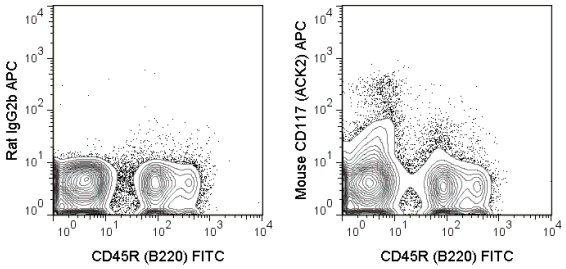
TECHNICAL DATA SHEET

APC Anti-Mouse CD117 (c-Kit) (ACK2)

Catalog Number: 20-1172

PRODUCT INFORMATION

Contents:	APC Anti-Mouse CD117 (c-Kit) (ACK2)
Isotype:	Rat IgG2b, kappa
Concentration:	0.2 mg/mL
Clone:	ACK2
Reactivity:	Mouse
Use By:	12 months from date of receipt
Storage Conditions:	2-8°C protected from light
Formulation:	10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH7.2



C57Bl/6 bone marrow cells were stained with FITC Anti-Mouse CD45R (B220) (35-0452) and 0.06 ug APC Anti-Mouse CD117 (20-1172) (right panel) or 0.06 ug APC Rat IgG2b (left panel).

DESCRIPTION

The ACK2 antibody is specific for CD117, also called c-Kit, a 145 kDa cytokine receptor important in the development of hematopoietic stem cells, in oogenesis, and for functional activity of immune cells such as NK and mast cells. c-Kit binds to a ligand known as stem cell factor (SCF), or alternatively as mast cell growth factor. Ligand binding promotes the activation (dimerization) and subsequent tyrosine kinase activity of the c-Kit receptor and triggers key survival, expansion and maturation signals during hematopoietic progenitor cell development. Conversely, shedding of extracellular domain of c-Kit receptor is reported to induce inactivation or apoptosis within these cells. The survival signaling activity of c-Kit confers a proto-oncogenic attribute to the receptor, as overexpression or mutations in this protein are associated with tumor development.The ACK2 antibody is widely utilized as a marker to identify hematopoietic progenitors, and to neutralize receptor-ligand binding in vitro and in vivo (use format appropriate for functional assays).

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been quality-tested for flow cytometry using mouse spleen cells, or an appropriate cell type (where indicated). Please refer to the figure legend for the optimal concentration used to stain the tissue shown. We recommend titrating the antibody under your specific conditions to determine the optimal concentration of antibody needed in your experimental system.

REFERENCES

Tang X, Tian L, Esteso G, Choi S-C, Barrow AD, Colonna M, Borrego F, and Coligan JE. 2012. J. Immunol. 188: 548-558. (Flow cytometry)Launay J-M, Herve P, Callebert J, Mallat Z, Collet C, Doly S, Belmer A, Diaz SL, Cote F, Humbert M, and Maroteaux L. 2012. Blood. 119: 1772-1780. (Immunohistochemistry - formaldehyde fixed tissue)Mark-Kappeler CJ, Sen N, Lukefahr A, McKee L, Sipes IG, Konhilas J, and Hoyer PB. 2011. Biol. Reprod. 85: 755-762. (in vitro blocking, Western blot – Fischer 344 Rat)Kim M-H, Granick JL, Wkok C, Walker NJ, Borjesson DL, Curry F-RE, Miller LS, and Simon SI. 2011. Blood. 117:3343-3352. (in vivo depletion)Fiorina P, Jurewicz M, Vergani A, Petrelli A, Carvello M, D'Addio F et al. 2011. J. Immunol. 186:121-131. (in vivo blocking)Stanich JE, Gibbons SJ, Eisenman ST, Bardsley MR, Rock JR, Harfe BD, Ordog T, and Farrugia G. 2011. 301: G1044-G1051. (Immunocytochemistry - acetone fixed cells) Carlsson IB, Laitinen MPE, Scott JE, Louhio H, Velentzis L, Tuuri T, Aaltonen J, Ritvos O, Winston RML, and Hovatta O. 2006. Reproduction. 131: 641-649. (Immunohistochemistry – paraffin embedded tissue, in vivo blocking)

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.