TECHNICAL DATA SHEET

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

Catalog Number: 70-1172

PRODUCT INFORMATION

Contents:	Purified Anti-Mouse CD117 (c-Kit) (ACK2)
Isotype:	Rat IgG2b, kappa
Concentration:	0.5 mg/mL
Clone:	ACK2
Reactivity:	Mouse
Use By:	12 months from date of receipt
Storage Conditions:	2-8°C
Formulation:	10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, pH 7.2

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 preparation was purified from tissue culture supernatant via affinity chromatography. For In Vivo Ready™ (IVR) products, each preparation is also evaluated for endotoxin levels using the LAL assay. It is recommended to store the product undiluted at 4°C. Do not freeze.

APPLICATION NOTES

This purified format is guaranteed to be >90% pure as determined by SDS-PAGE analysis. Citations are provided as a convenience to you - please consult Materials and Methods sections for additional details about the use of any product in these publications.

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.