Technical Data Sheet

Purified NA/LE Rat Anti-Mouse CD117

Product Information

Material Number:	553867
Alternate Name:	c-Kit
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	ACK45
Immunogen:	Mouse bone marrow mast cells
Isotype:	Rat IgG2b, ĸ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative,
5	$0.2\mu m$ sterile filtered. Endotoxin level is $\leq 0.01 \text{ EU}/\mu g$ ($\leq 0.001 \text{ ng}/\mu g$) of
	protein as determined by the LAL assay.

Description

The ACK45 antibody reacts with CD117 (c-Kit), a transmembrane tyrosine-kinase receptor which is encoded by the *Kit* gene (formerly dominant white spotting, *W*). The c-Kit ligand (also known as steel factor, stem cell factor, and mast-cell growth factor) encoded by the *Kitl* gene (formerly steel, SI), is a co-mitogen for hematopoietic stem cells and the myeloerythroid progenitors and a mast-cell differentiation factor. The *Kitl[W]* and *Kitl[SI]* mutant alleles have similar pleiotropic effects on the development of melanocytes, germ cells, and the hematopoietic system. In the adult bone marrow, CD117 is expressed on hematopoietic progenitor cells, including the CD90 (Thy-1)[lo] TER-119[-] CD45R/B220[-] CD11b (Mac-1)[-] Ly-6G (Gr-1)[-] CD4[-] CD8[-] Sca-1 (Ly-6A/E)[+] multipotent hematopoietic stem cells, progenitors committed to myeloid and/or erythroid lineages, and precursors of B and T lymphocytes. This widespread expression of CD117 in hematopoietic precursors is consistent with the participation of c-Kit and its ligand in the regulation of some events during the development of T lymphocytes. CD117 is also expressed by mast cells. The expression of CD117 has been included in protocols to isolate hematopoietic progenitors from fetal and adult peripheral blood. The specificity and functional activity of mAb ACK45 is very similar to that of the published antibody ACK22; it is reported to block the action of c-Kit in vitro and in vivo.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application	
Flow cytometry	Routinely Tested
Blocking	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone	
553985	Purified NA/LE Rat IgG2b, κ Isotype Control	0.5 mg	A95-1	
553898	Biotin Mouse Anti-Rat IgG2b	0.5 mg	RG7/11.1	
554061	PE Streptavidin	0.5 mg	(none)	

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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