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CD20 Monoclonal Mouse Antibody (93-1B3)

Product Description

Recognizes a protein of 30-33 kDa, which is identified as CD20 (Workshop V; Code CD20.4). It is a non-Ig differentiation antigen of B-cells and its expression is restricted to normal and neoplastic B-cells, being absent from all other leukocytes and tissues. CD20 is expressed by pre B-cells and persists during all stages of B-cell maturation but is lost upon terminal differentiation into plasma cells. The protein passes through the membrane 4 times with both ends in cytoplasm and exposes one short and one longer loop to the external environment. CD20 is not glycosylated in resting B-cells and its cytoplasmic domains are differentially phosphorylated upon activation. It acts as calcium channel involved in B cell activation and cell cycle progression.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 1047, Anti-CD20 (93-1B3)

Product attributes

Antibody number	#1047
Antibody reactivity (target)	CD20
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	93-1B3
Isotype	IgG1, kappa
Molecular weight of antigen	33-37 kDa
Synonyms	APY; ATOPY; B-lymphocyte cell-surface antigen B1; Bp35; Fc epsilon receptor I beta chain; Fc Fragment of IgE high affinity I receptor for beta polypeptide; FCER1B; High affinity immunoglobulin epsilon receptor subunit beta; IgE Fc receptor subunit beta; IGEL; IGER; IGHER; LEU16; Leukocyte surface antigen Leu-16; Ly44; Membrane spanning 4 domains subfamily A member 2; Membrane-spanning 4-domains subfamily A member 1 (MS4A1)
Human gene symbol	MS4A1
Entrez gene ID	931
SwissProt	P11836
Unigene	712553
Immunogen	Stimulated human leukocytes
Antibody target cellular localization	Plasma membrane
Species reactivity	Human
Expected antibody applications	Flow (surface), Functional studies (published for clone), IF (published for clone)
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Functional Studies order Ab without BSA & azide), Optimal dilution for a specific application should be determined by user
Positive control	Daudi, Raji, and U266, and human lymphocytes. Lymph nodes and tonsils.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Immunology
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Cell/tissue expression	B-cells, Lymphocytes
Tumor expression	Leukemia/lymphoma

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. J Leukoc Biol (2001) 69: 215-223. (cell enrichment)
2. Exp Oncol (2004) 26(3):210-216. (IF)