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# CD1a Monoclonal Mouse Antibody (66IIC7)

## Product Description

At least five CD1 genes (CD1a, b, c, d, and e) are identified. CD1 proteins have been demonstrated to restrict T cell response to non-peptide lipid and glycolipid antigens and play a role in non-classical antigen presentation. CD1a is a non-polymorphic MHC Class 1 related cell surface glycoprotein, expressed in association with Beta-2 microglobulin. Anti-CD1a labels Langerhans cell histiocytosis (Histiocytosis X), extranodal histiocytic sarcoma, a subset of T-lymphoblastic lymphoma/leukemia, and interdigitating dendritic cell sarcoma of the lymph node. When combined with antibodies against TTF-1 and CD5, anti-CD1a is useful in distinguishing between pulmonary and thymic neoplasms since CD1a is consistently expressed in thymic lymphocytes in both typical and atypical thymomas, but only focally in 1/6 of thymic carcinomas and not in lymphocytes in pulmonary neoplasms. Anti-CD1a is reported to be a new marker for perivascular epithelial cell tumor (PEComa).

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](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 1034, Anti-CD1a (66IIC7)**

Call us : [800-304-5357](tel:800-304-5357)

## Product attributes

<b>Antibody number</b>	#1034
<b>Antibody reactivity (target)</b>	CD1a, HTA1
<b>Antibody type</b>	Primary
<b>Host species</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone</b>	66IIC7
<b>Isotype</b>	IgG2a, kappa
<b>Molecular weight of antigen</b>	49 kDa
<b>Synonyms</b>	Cortical thymocyte antigen CD1A, Epidermal dendritic cell marker CD1a, FCB6, HTA1, T cell surface antigen T6 / Leu 6, T-Cell Surface Glycoprotein CD1A
<b>Human gene symbol</b>	CD1A
<b>Entrez gene ID</b>	909
<b>SwissProt</b>	P06126
<b>Unigene</b>	1309
<b>Immunogen</b>	Human thymocytes
<b>Antibody target cellular localization</b>	Plasma membrane
<b>Verified antibody applications</b>	Flow (verified)
<b>Species reactivity</b>	Human
<b>Expected antibody applications</b>	Flow, surface (published for clone), IHC (frozen) (published for clone)
<b>Antibody application notes</b>	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody. Immunofluorescence: 1-2 ug/mL. Immunohistology formalin-fixed 0.5-1 ug/mL. Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes. Flow Cytometry 0.5-1 ug/million cells/0.1 mL. Optimal dilution for a specific application should be determined by user
<b>Positive control</b>	MOLT-4 cells. Paracortex in a tonsil or a reactive lymph node.
<b>Shipping condition</b>	Room temperature
<b>Storage Conditions</b>	Store at 2 to 8 °C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °C
<b>Shelf life</b>	Guaranteed for at least 24 months from date of receipt when stored as recommended
<b>Regulatory status</b>	For research use only (RUO)
<b>Antibody/conjugate formulation</b>	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
<b>Antibody research areas</b>	Cancer
<b>Product origin</b>	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.
<b>Cell/tissue expression</b>	Antigen presenting cells
<b>Tumor expression</b>	Leukemia/lymphoma

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF@405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF@405S Features</a>
BNC88	CF@488A	490/515	488	GFP, FITC	<a href="#">CF@488A Features</a>
BNC68	CF@568	562/583	532, 561	RFP, TRITC	<a href="#">CF@568 Features</a>
BNC94	CF@594	593/614	561	Texas Red®	<a href="#">CF@594 Features</a>
BNC40	CF@640R	642/662	633-640	Cy@5	<a href="#">CF@640R Features</a>
BNC47	CF@647	650/665	633-640	Cy@5	<a href="#">CF@647 Features</a>
BNC74	CF@740	742/767	633-685	775/50	<a href="#">CF@740 Features</a>
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 Inv Dermatol (1991) 97(5): 885-891. (Flow, surface)
2. J Allergy Clin Immunol (2001) 107(4): P627-633. (IHC, frozen)
3. Clin Exp Immunol (1994) 98(2): 330-336. (IHC, frozen)

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Product link: <https://biotium.com/product/monoclonal-anti-cd1a-66ic7/>