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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 <a href="mailto:order@biotium.com">order@biotium.com</a> 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 Email: btinfo@biotium.com

#### Product attributes

Antibody number	#1034		
Antibody reactivity (target)	CD1a, HTA1		
Antibody type	Primary		
Host species	Mouse		
Clonality	Monoclonal		
Clone	66IIC7		
Isotype	IgG2a, kappa		
Molecular weight	49 kDa		
Synonyms	Cortical thymocyte antigen CD1A, Epidermal dendritic cell marker CD1a, FCB6, HTA1, T cell surface antigen T6 / Leu 6, T-Cell Surface Glycoprotein CD1A		
Human gene symbol	CD1A		
Entrez gene ID	909		
SwissProt	P06126		
Unigene	1309		
Immunogen	Human thymocytes		
Antibody target cellular localization	Plasma membrane		
Verified antibody applications	Flow (verified)		
Species reactivity	Human		
Expected antibody applications	Flow, surface (published for clone), IHC (frozen) (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: 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		
Positive control	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		
Positive control Shipping condition	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		
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Shipping condition Storage Conditions	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  MOLT-4 cells. Paracortex in a tonsil or a reactive lymph node.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when		
Shipping condition Storage Conditions Shelf life	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  MOLT-4 cells. Paracortex in a tonsil or a reactive lymph node.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended		
Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate	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  MOLT-4 cells. Paracortex in a tonsil or a reactive lymph node.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  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/Purified; 0.2 mg/mL in PBS/0.05% BSA/Purified; BSA-free: 1 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, In PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in		
Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate formulation	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  MOLT-4 cells. Paracortex in a tonsil or a reactive lymph node. Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  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/Purified: 0.2 mg/mL in PBS/0.05% BSA/Purified: 0.2 mg/mL in PBS without azide		
Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate formulation Antibody research areas	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  MOLT-4 cells. Paracortex in a tonsil or a reactive lymph node.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  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 without azide  Cancer  Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in		
Shipping condition Storage Conditions Shelf life Regulatory status Antibody/conjugate formulation Antibody research areas Product origin	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  MOLT-4 cells. Paracortex in a tonsil or a reactive lymph node.  Room temperature  Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C  Guaranteed for at least 24 months from date of receipt when stored as recommended  For research use only (RUO)  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 without azide  Cancer  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.		

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	

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## References

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

- J Inv Dermatol (1991) 97(5): 885-891. (Flow, surface)
   J Allergy Clin Immunol (2001) 107(4): P627-633. (IHC, frozen)
   Clin Exp Immunol (1994) 98(2): 330-336. (IHC, frozen)

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