

## 4KB51

CONTACT INFORMATION:	LRF Haemato-oncology Group. University of Oxford
STATUS:	Validated
TYPE:	mouse anti human
CLONE NAME:	4KB51
PROTEIN:	-
ANTIGEN USED:	Hairy cell leukaemia
FUSION PARTNER:	NS1
ISOTYPE:	IgG2a
SPECIES REACTIVITY:	human
PREPARATION AND STORAGE:	Aliquot and store at 4C. Do not freeze
APP RECOMMENDED:	IHQ-frozen, IP, Flow cytometry, WB
APP NO RECOMMENDED:	IHQ-paraffin
APP NO TESTED:	IF

### DESCRIPTION

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The 4KB51 antigen is an intracellular marker. The antibody labelled B- and T-cells but not germinal centre cells or plasma cells. Labelling was also observed of suprabasal epithelial cells. Staining was observed in 11 out of 11 cases of hairy cell leukaemia studied and in the neoplastic cells in 2 cases of chronic myeloid leukaemia, 3/4 cases of acute myeloid leukaemia and 4/16 cases of mantle cell lymphoma. All other B-cell tumours (CLL, CALL, Myeloma, DLBCL), T-cell tumours (ALCL, ALL, PTCL) and HL studied were unlabelled.

### REFERENCES

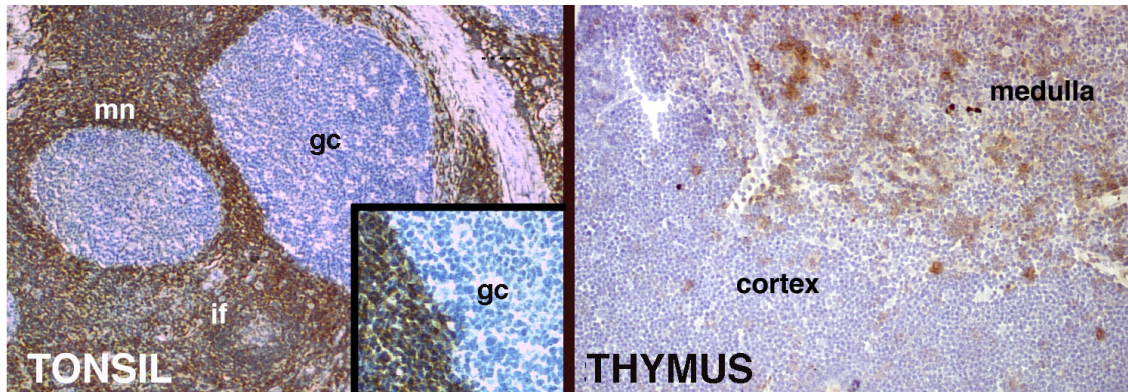
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Bryan N & Pulford K. 2002 Heterogeneity of expression of the 4KB51 antigen on cord blood and peripheral blood cells. In Proceedings of VIIth International Workshop on White Cell Differentiation Antigens. Ed Mason DY et al. 2002. Oxford University Press, Oxford. P.137-139.

Pulford K, Micklem KJ, Jones M, Pezzella F, Mayne KM, Morrison H, Thomas J, Falini B, Norton A, Mason DY. A novel internal antigen which distinguishes germinal centre cells from other B-cell types. Immunology 1994; 82:154-63.

**APPLICATIONS**

IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species
<b>Frozen tissue and cytopspins</b>									
Recommended	4KB51	Neat	Supernatant	None	HRP or APAAP	Tonsil	No first ab	intracellular	Unknown
<b>Paraffin tissue</b>									
Not recommended	Not reactive								
<b>Immunofluorescence</b>									
Recommended	4KB51	Neat							



**Immunoperoxidase labelling of tonsil and thymus to show the distribution of the 4KB51 antigen**

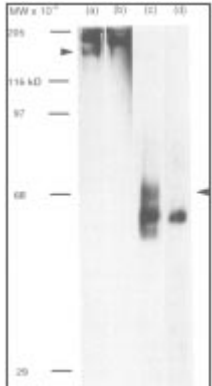
Antibody 4KB51 labels the mantle zone and interfollicular areas of tonsil while germinal centre cells are unlabelled. Labelling in the thymus is largely restricted to a subpopulation of cells in the medulla.

WB Techniques	Clone	Dilution	Antibody concentration	Positive control	Negative control	Expected MW	Observed Mw	Positivity in other species

Western Blotting

Immunoprecipitation

Recommended	4KB51	Neat	supernatant		mouse IgG2a			
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**Biochemical characterisation of the 4KB51 antigen.**

Immunoaffinity purified 4KB51 was biotinylated and immunoprecipitated with antibody coated Prot G-Sepharose before SDS-PAGE. After Western blotting with Steptavidin-HRP, a) the 4KB51 antigen was 160 kD (arrowhead, unreduced) and c) 68 kD (reduced). Lanes b) and c) show the results obtained using isotype matched controls.