FOXP1

CONTACT INFORMATION:	LRF Haemato-oncology Group. University of Oxford
TYPE:	mouse anti human
CLONE NAME:	JC12
PROTEIN:	Endogenous murine Foxp1
PROTEIN WEB:	http://www.ncbi.nlm.nih.gov/omim/605515
ANTIGEN USED:	Not reactive with the BCLX immunogen, recognised a mouse autoantigen
FUSION PARTNER:	NS1
ISOTYPE:	IgG2a
SPECIES REACTIVITY:	Human and mouse
PREPARATION AND STORAGE:	Aliquot and store at 4oC. Do not freeze.
APP RECOMMENDED:	IHQ-paraffin, IHQ-frozen, WB, IP
APP NO TESTED:	Flow cytometry, IF

DESCRIPTION

The JC12 monoclonal antibody was produced by Ms Jacqueline Cordell in the LRF Immunodiagnostics Unit in Oxford. The antibody recognised a nuclear mouse autoantigen that was identified as the forkhead transcription factor FOXP1 by Dr Alison Banham. The FOXP1 gene maps to an important tumour suppressor locus on 3p14.1 and is targeted by recurrent chromosome translocations in B-cell non-Hodgkin lymphoma. FOXP1 is widely expressed in normal tissues and its expression is commonly de-regulated in malignancies. Loss of FOXP1 expression has been correlated with a poor prognosis in solid tumours, such as breast cancer. In contrast high level expression of smaller isoforms of the FOXP1 protein identifies high risk patients with diffuse large B-cell lymphoma. The JC12 antibody recognises a C-terminal epitope common to most isoforms of both the human and murine FOXP1 proteins.

PUBLICATION DESCRIBING ANTIBODY CHARACTERIZATION/VALIDATION

A.H. Banham, N. Beasley, E. Campo, P.L. Fernandez, C. Fidler, K. Gatter, M. Jones, D.Y. Mason, J.E. Prime, P.Trougouboff, K.Wood & J.L. Cordell, 2001. The FOXP1 winged helix transcription factor is a novel candidate tumour suppressor gene on chromosome 3p. Cancer Research, 61, 8820-8829.

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A.H. Banham, N. Beasley, E. Campo, P.L. Fernandez, C. Fidler, K. Gatter, M. Jones, D.Y. Mason, J.E. Prime, P.Trougouboff, K.Wood & J.L. Cordell, 2001. The FOXP1 winged helix transcription factor is a novel candidate tumour suppressor gene on chromosome 3p. Cancer Research, 61, 8820-8829.

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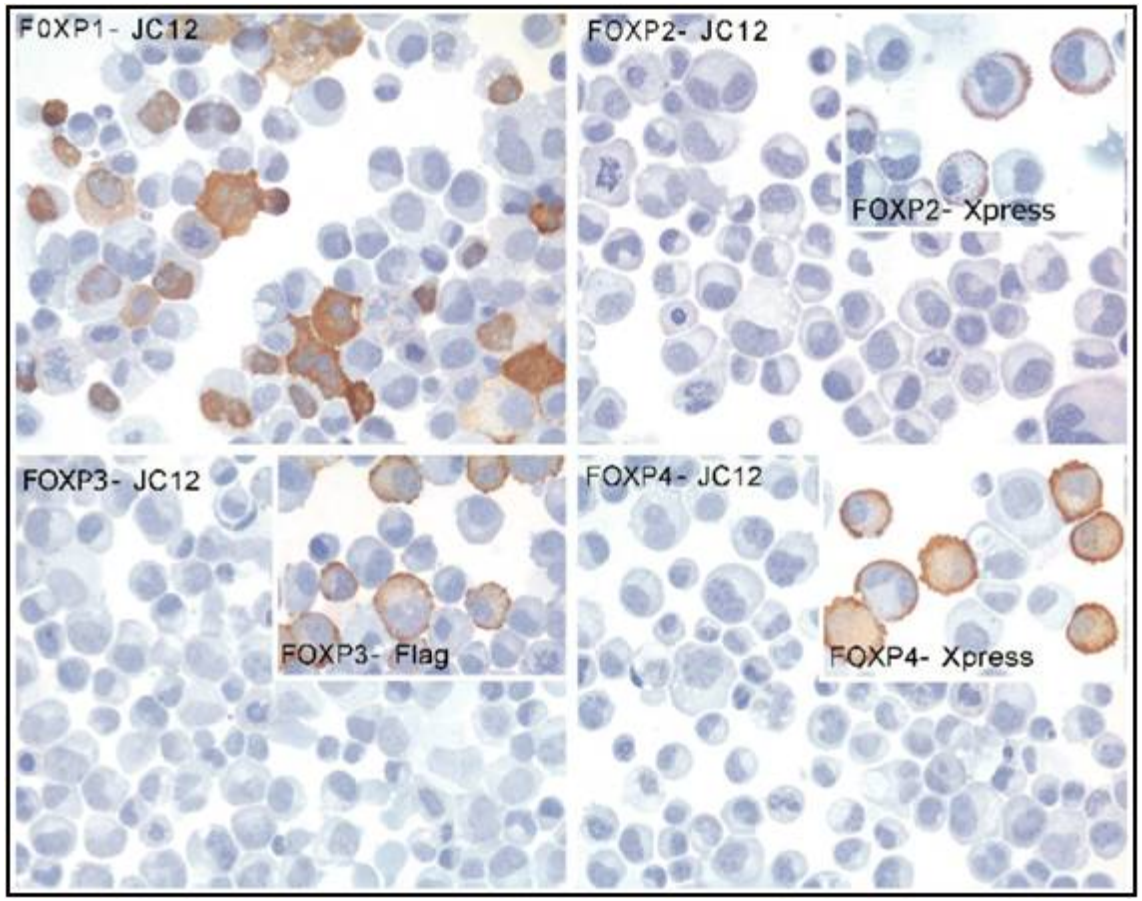
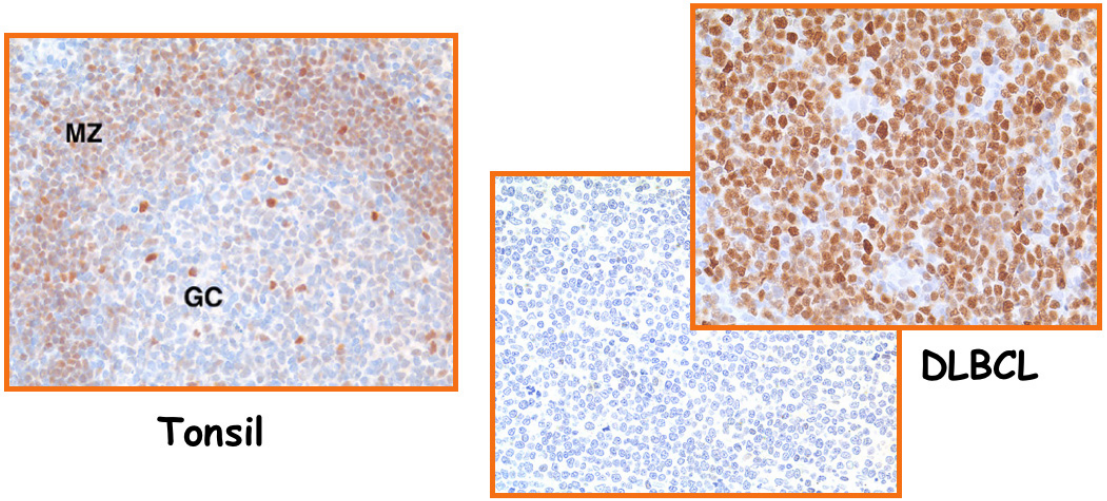
APPLICATIONS

IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species
Frozen tissue and cytospins									
Recommended	JC12	1/10	supernatant	N/A	DAKO Envision	Tonsil	THIEL	Nucleus	Mouse
Paraffin tissue									
Recommended	JC12	1/80	supernatant	Tris/EDTA	DAKO Envision	Tonsil	THIEL	Nucleus	Mouse
Immunofluorescence									



JC12 mAb in transfected cells

Nuclear and cytoplasmic staining of FOXP1 transfected COS1 cells. No reactivity with FOXP family members (FOXP2, FOXP3, FOXP4).

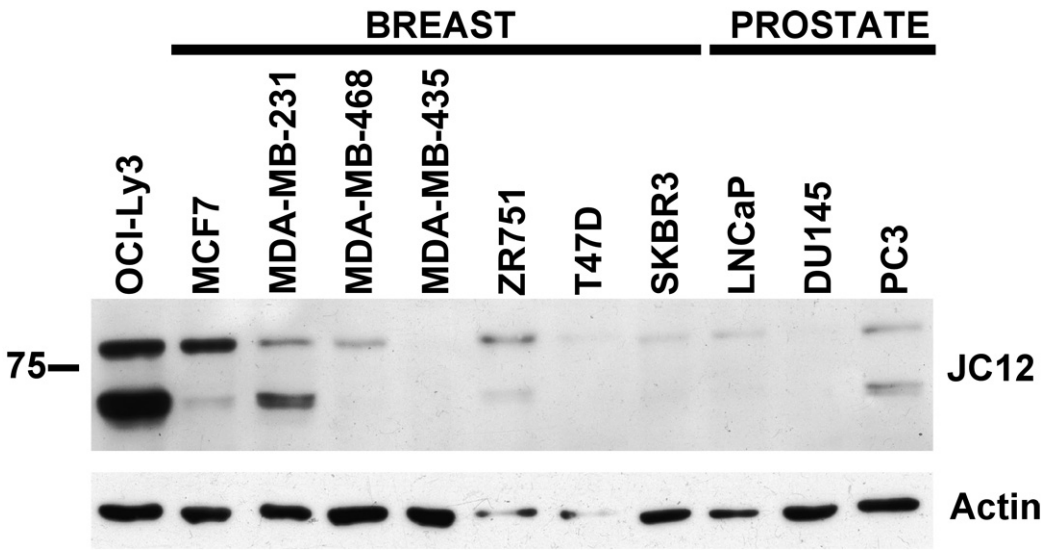


JC12 IHC on paraffin tissues

JC12 staining on normal tonsil shows characteristic FOXP1 expression in mantle zone B cells, together with a proportion of germinal centre and interfollicular lymphocytes.

JC12 staining identified differential FOXP1 expression in diffuse large B-cell lymphoma, with both strongly nuclear positive cases and negative cases being identified.

WB Techniques	Clone	Dilution	Antibody concentration	Positive control	Negative control	Expected MW	Observed Mw	Positivity in other species
Western Blotting								
Recommended	JC12	1/30	supernatant	DB / Tonsil	THIEL		Approx 75kDa	
Immunoprecipitation								
Recommended	JC12		supernatant	DB / Tonsil	THIEL		Approx 75kDa	



JC12 Western Blotting on cell lines

JC12 Western Blotting of an activated B-cell-like diffuse large B-cell lymphoma (ABC-DLBCL) cell line (OCI-Ly3) and a panel of breast and prostate cell lines. Most cell lines express the full length FOXP1 protein, but smaller isoforms are also expressed in some. These are particularly abundant in the ABC-DLBCL cell line.