



Qty: 100 µg/200 µL

Mouse anti-Oct-2

Catalog No. 39-5400

Lot No.

Mouse anti-Oct-2

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: ZO001

ISOTYPE: Mouse IgG₁-kappa

IMMUNOGEN

Synthetic peptide derived from the C-terminal region of the human, mouse, and rat Oct-2 proteins

SPECIFICITY

This antibody is specific for the Oct-2 (octamer-binding transcription factor 2, OTF2, POU2F2) protein. On Western blots, it identifies the target band at ~50 kDa.

REACTIVITY

Reactivity has been confirmed with human Raji cell lysates by Western blotting, and with formalin-fixed, paraffin-embedded human tonsil tissue by immunohistochemistry. Based on amino acid sequence homology, reactivity with mouse and rat is expected.

Sample	Western Blotting	ELISA	Immuno-histochemistry (paraffin)*
Human	+++	ND	+++
Mouse	ND	ND	ND
Rat	ND	ND	ND
Immunogen	N/A	+++	N/A

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting: 1 µg/mL

ELISA: 0.1 – 1.0 µg/mL

Immunohistochemistry (paraffin)*: 5 µg/mL

*For immunohistochemistry in paraffin-embedded tissues, heat induced epitope retrieval with citrate buffer, pH 6.0, is required prior to staining. For IHC in FFPE human tissues, Cat. No. 18-0471 is recommended.

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI395400

(Rev 10/08) DCC-08-1089

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BACKGROUND

Oct-2 (octamer-binding transcription factor 2, OTF2, POU2F2 OTF) belongs to the POU (Pit, Oct, Unc) family of transcription factors, and specifically binds to the octamer motif 5'-ATTTGCAT-3'. Oct-2 is expressed in cells of B lymphocyte lineage and in the developing central nervous system, contains 1 homeobox domain, and regulates transcription in a number of tissues in addition to activating immunoglobulin gene expression.¹ The function of human Oct-2 in immunoglobulin (Ig)-secreting cells requires plasmacytoma-specific coactivator OCA-B working synergistically to sustain the gene expression profile of the Ig-secreting cell.² Oct-1 and Oct-2 are critical for normal embryonic development, and Oct-2 has been described as a survival factor in lymphoma cells with the t(14;18) translocation by directly activating the anti-apoptotic gene, Bcl-2.³

REFERENCES

1. Pfisterer P, et al. *Immunobiology* 198(1-3):217-226, 1997.
2. Salas M, Eckhardt LA. *J Immunol* 171(12):6589-6598, 2003.
3. Heckman CA, et al. *Oncogene* 2005 Sep 26; [epub ahead of print].

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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