

# Oct-2 (C-20): sc-233

## BACKGROUND

POU domain proteins contain a bipartite DNA-binding domain divided by a flexible linker that enables them to adopt various monomer configurations on DNA. The versatility of POU protein operation is additionally conferred at the dimerization level. The POU dimer from the OCT1 gene formed on the palindromic OCT factor recognition element, or PORE (ATTGAAATGCAAT), could recruit the transcriptional coactivator OBF1. Studies of tissue-specific expression of immunoglobulin promoters demonstrate the importance of an octamer, ATTTGCAT, and the proteins that bind to it. This is a regulatory element important for tissue- and cell-specific transcription as well as for transcription of a number of housekeeping genes. Oct-1 encodes one protein, NF-A1, which is found in nuclear extracts from all cell types and thus is not specific to lymphoid cells as is the protein NF-A2, which is encoded by Oct-2.

## CHROMOSOMAL LOCATION

Genetic locus: POU2F2 (human) mapping to 19q13.2; Pou2f2 (mouse) mapping to 7 A3.

## SOURCE

Oct-2 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Oct-2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-233 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-233 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Oct-2 (C-20) is recommended for detection of Oct-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Oct-2 (C-20) is also recommended for detection of Oct-2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Oct-2 siRNA (h): sc-36121, Oct-2 siRNA (m): sc-36122, Oct-2 shRNA Plasmid (h): sc-36121-SH, Oct-2 shRNA Plasmid (m): sc-36122-SH, Oct-2 shRNA (h) Lentiviral Particles: sc-36121-V and Oct-2 shRNA (m) Lentiviral Particles: sc-36122-V.

Oct-2 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Oct-2A: 60 kDa.

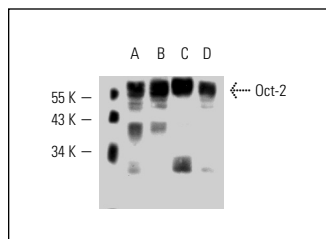
Molecular Weight of Oct-2B: 75 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, Daudi cell lysate: sc-2415 or MM-142 nuclear extract: sc-2139.

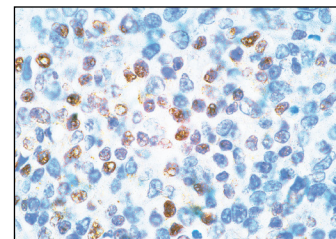
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



Oct-2 (C-20): sc-233. Western blot analysis of Oct-2 expression in Ramos (A), Daudi (B), Raji (C) and MM-142 (D) whole cell lysates.



Oct-2 (C-20): sc-233. Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal human tonsil showing nuclear localization.

## SELECT PRODUCT CITATIONS

- Martinez-Balbas, M.A., et al. 1995. Displacement of sequence-specific transcription factors from mitotic chromatin. *Cell* 83: 29-38.
- Di Bartolo, D.L., et al. 2009. Role of defective Oct-2 and OCA-B expression in immunoglobulin production and Kaposi's sarcoma-associated herpesvirus lytic reactivation in primary effusion lymphoma. *J. Virol.* 83: 4308-4315.
- Hofmann, E., et al. 2010. Octamer-binding factor 6 (Oct-6/Pou3f1) is induced by interferon and contributes to dsRNA-mediated transcriptional responses. *BMC Cell Biol.* 11: 61.
- Schmuckli-Maurer, J., et al. 2010. Modulation of NFκB activation in *Theileria annulata*-infected cloned cell lines is associated with detection of parasite-dependent IKK signalosomes and disruption of the actin cytoskeleton. *Cell. Microbiol.* 12: 158-173.
- Hernández, A., et al. 2010. Human promoter mutations unveil Oct-1 and GATA-1 opposite action on Gfi1b regulation. *Ann. Hematol.* 89: 759-765.
- Herbeck, R., et al. 2011. B-cell transcription factors Pax-5, Oct-2, BOB.1, Bcl-6, and MUM1 are useful markers for the diagnosis of nodular lymphocyte predominant Hodgkin lymphoma. *Rom. J. Morphol. Embryol.* 52: 69-74.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Oct-2 (PT2): sc-56822** or **Oct-2 (F-5): sc-377475**, our highly recommended monoclonal alternatives to Oct-2 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Oct-2 (PT2): sc-56822**.