

# Oct-6 (A-8): sc-376093

## BACKGROUND

POU homeodomain proteins are transcriptional regulators that function in various developmental processes (e.g. cell division, differentiation, specification and survival of specific cell types) and participate in the determination of cell fate. The POU transcription factor Oct-6 (also designated SCIP and Tst-1) is expressed by late embryonic Schwann cells of the peripheral nervous system and is also expressed by nonmyelinating Schwann cells in adults. Oct-6 is strongly upregulated in promyelinating cells because it is required for the timely differentiation of promyelinating cells into myelinating cells. Oct-6 functions during myelination and is required for the proper downregulation of its own gene when myelination proceeds. c-Myc can act synergistically with the POU domain of Oct-6 to produce myelin disease pathogenesis in the mammalian central nervous system.

## REFERENCES

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2. Monuki, E.S., et al. 1990. Expression and activity of the POU transcription factor SCIP. *Science* 249: 1300-1303.
3. Blanchard, A.D., et al. 1996. Oct-6 (SCIP/Tst-1) is expressed in Schwann cell precursors, embryonic Schwann cells and postnatal myelinating Schwann cells: comparison with Oct-1, Krox-20 and Pax-3. *J. Neurosci. Res.* 46: 630-640.
4. Jaegle, M., et al. 1996. The POU factor Oct-6 and Schwann cell differentiation. *Science* 273: 507-510.
5. Jaegle, M., et al. 1998. Role of Oct-6 in Schwann cell differentiation. *Microsc. Res. Tech.* 41: 372-378.
6. Jensen, N.A., et al. 1998. Neurological disturbances, premature lethality and central myelination deficiency in transgenic mice overexpressing the homeodomain transcription factor Oct-6. *J. Clin. Invest.* 101: 1292-1299.
7. Levavasseur, F., et al. 1998. Comparison of sequence and function of the Oct-6 genes in zebrafish, chicken and mouse. *Mech. Dev.* 74: 89-98.
8. Jensen, N.A., et al. 1999. Oligodendrocyte programmed cell death and central myelination deficiency induced in transgenic mice by synergism between c-Myc and Oct-6. *J. Biol. Chem.* 274: 29921-29926.
9. Mandemakers, W., et al. 1999. Transcriptional regulation of the POU gene Oct-6 in Schwann cells. *Adv. Exp. Med. Biol.* 468: 13-22.

## CHROMOSOMAL LOCATION

Genetic locus: POU3F1 (human) mapping to 1p34.3; Pou3f1 (mouse) mapping to 4 D2.2.

## SOURCE

Oct-6 (A-8) is a mouse monoclonal antibody raised against amino acids 111-160 mapping within an internal region of Oct-6 of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain 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-376093 X, 200 µg/0.1 ml.

## APPLICATIONS

Oct-6 (A-8) is recommended for detection of Oct-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Oct-6 siRNA (h): sc-38774, Oct-6 siRNA (m): sc-38775, Oct-6 shRNA Plasmid (h): sc-38774-SH, Oct-6 shRNA Plasmid (m): sc-38775-SH, Oct-6 shRNA (h) Lentiviral Particles: sc-38774-V and Oct-6 shRNA (m) Lentiviral Particles: sc-38775-V.

Oct-6 (A-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

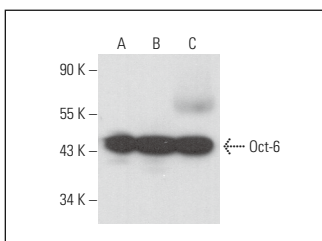
Molecular Weight of Oct-6: 46 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Hep G2 cell lysate: sc-2227 or human testis extract: sc-363781.

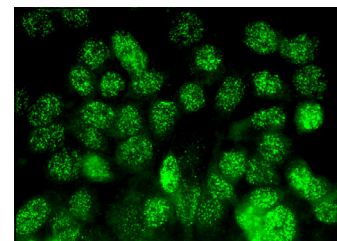
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Oct-6 (A-8): sc-376093. Western blot analysis of Oct-6 expression in HL-60 (A) and Hep G2 (B) whole cell lysates and human testis tissue extract (C).



Oct-6 (A-8): sc-376093. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

## STORAGE

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