

Oct-1 (H-65): sc-25399

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 Oct-1 gene formed on the palindromic Oct factor recognition element, or PORE (ATTTGAAATGCAAAT), 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. The genes Oct-1 and Oct-2 map to human chromosomes 1q24.1 and 19q13.2, respectively.

CHROMOSOMAL LOCATION

Genetic locus: POU2F1 (human) mapping to 1q24.1; Pou2f1 (mouse) mapping to 1 H2.3.

SOURCE

Oct-1 (H-65) is a rabbit polyclonal antibody raised against amino acids 679-743 mapping at the C-terminus of Oct-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-25399 X, 200 µg/0.1 ml.

APPLICATIONS

Oct-1 (H-65) is recommended for detection of Oct-1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Oct-1 (H-65) is also recommended for detection of Oct-1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Oct-1 siRNA (h): sc-36119, Oct-1 siRNA (m): sc-36120, Oct-1 shRNA Plasmid (h): sc-36119-SH, Oct-1 shRNA Plasmid (m): sc-36120-SH, Oct-1 shRNA (h) Lentiviral Particles: sc-36119-V and Oct-1 shRNA (m) Lentiviral Particles: sc-36120-V.

Oct-1 (H-65) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

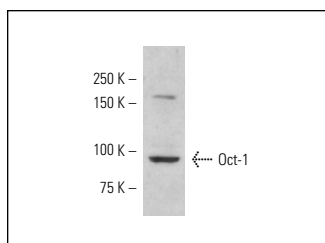
Molecular Weight of Oct-1: 95 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Ramos cell lysate: sc-2216 or U-698-M whole cell lysate.

RESEARCH USE

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

DATA



Oct-1 (H-65): sc-25399. Western blot analysis of Oct-1 expression in U-698-M whole cell lysate.

SELECT PRODUCT CITATIONS

1. Lyakh, L.A., et al. 2005. TGF-β and vitamin D3 utilize distinct pathways to suppress IL-12 production and modulate rapid differentiation of human monocytes into CD83⁺ dendritic cells. *J. Immunol.* 174: 2061-2070.
2. Majalahti, T., et al. 2007. Cardiac BNP gene activation by Angiotensin II *in vivo*. *Mol. Cell. Endocrinol.* 273: 59-67.
3. Wong, S.H., et al. 2007. Zinc deficiency depresses p21 gene expression: inhibition of cell cycle progression is independent of the decrease in p21 protein level in HepG2 cells. *Am. J. Physiol., Cell Physiol.* 292: C2175-C2184.
4. Majalahti, T., et al. 2009. Characterization of promoter elements required for cardiac chamber-specific expression. *Mol. Cell. Endocrinol.* 307: 50-56.
5. Liu, Y., et al. 2010. POU homeodomain protein OCT1 modulates islet 1 expression during cardiac differentiation of P19CL6 cells. *Cell. Mol. Life Sci.* 68: 1969-1982.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **Oct-1 (12F11): sc-8024** or **Oct-1 (YL15): sc-53830**, our highly recommended monoclonal alternatives to Oct-1 (H-65).