

# Oct-1 (E-8): sc-28334

## 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 (PORE), which is comprised of an inverted pair of homeodomain-binding sites separated by exactly 5 bp (ATTGAAATGCAAT), could recruit the transcriptional co-activator 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. The Oct-1 gene 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 the Oct-2 gene.

## CHROMOSOMAL LOCATION

Genetic locus: POU2F1 (human) mapping to 1q24.1.

## SOURCE

Oct-1 (E-8) is a mouse monoclonal antibody raised against amino acids 679-743 mapping at the C-terminus of Oct-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgM 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-28334 X, 200 µg/0.1 ml.

## STORAGE

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

## APPLICATIONS

Oct-1 (E-8) is recommended for detection of Oct-1 of 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-1 siRNA (h): sc-36119, Oct-1 shRNA Plasmid (h): sc-36119-SH and Oct-1 shRNA (h) Lentiviral Particles: sc-36119-V.

Oct-1 (E-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

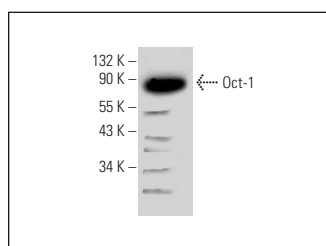
Molecular Weight of Oct-1: 95 kDa.

Positive Controls: U-698-M whole cell lysate: sc-364799, Jurkat nuclear extract: sc-2132 or Ramos cell lysate: sc-2216.

## 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 L-Agarose: sc-2336 (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-1 (E-8): sc-28334. Western blot analysis of Oct-1 expression in U-698-M whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Zhou, C., et al. 2008. Oct-1 induces pituitary tumor transforming gene expression in endocrine tumors. *Endocr. Relat. Cancer* 15: 817-831.
2. Iwamoto, F., et al. 2008. Transcription-dependent nucleolar cap localization and possible nuclear function of DEXH RNA helicase RHAU. *Exp. Cell Res.* 314: 1378-1391.
3. Li, H., et al. 2016. Characterization of KIR intermediate promoters reveals four promoter types associated with distinct expression patterns of KIR subtypes. *Genes Immun.* 17: 66-74.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.