

For Research Use Only

# OCT4 Monoclonal antibody, PBS Only

Catalog Number: 60242-1-PBS



## Basic Information

<b>Catalog Number:</b> 60242-1-PBS	<b>GenBank Accession Number:</b> BC020712	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug , Concentration: 1mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 5460	<b>CloneNo.:</b> 1C4B6
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q01860	
<b>Isotype:</b> IgG1	<b>Full Name:</b> POU class 5 homeobox 1	
<b>Immunogen Catalog Number:</b> AG1794	<b>Calculated MW:</b> 39 kDa	
	<b>Observed MW:</b> 50-52 kDa	

## Applications

**Tested Applications:**  
WB, IHC, Indirect ELISA

**Species Specificity:**  
human, mouse, rat

## Background Information

Expression of the OCT4 transcription factor is associated with an undifferentiated phenotype of human and mouse embryonic stem cells and germ cells. OCT4 (Octamer-4) is a homeodomain transcription factor of the POU family (POU5F1) involved in regulation of pluripotency during normal development and is detectable in embryonic stem (ES) and germ cells. Its expression is associated with an undifferentiated phenotype and tumors. In fact, gene knockdown of OCT4 promotes differentiation, thereby demonstrating a role for this factor in human ES cell self-renewal. As such, it is frequently used as a marker for undifferentiated ES cells or iPS (induced pluripotent stem) cells. OCT4 is one of the four key transcription factors (OCT4, SOX2, c-MYC, and KLF4) used to reprogram mouse and human fibroblasts to a pluripotent state as well as generate patient-specific iPS cells. The calculated molecular weight of OCT4 is 38 kDa, but the modified OCT4 protein is about 50 kDa.

## Storage

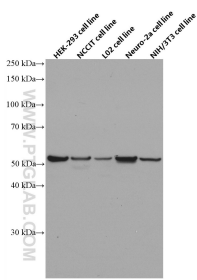
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

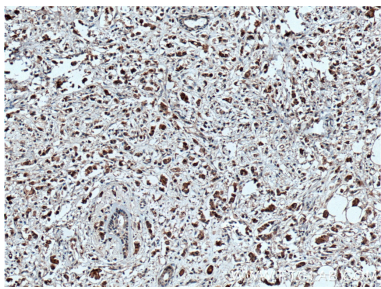
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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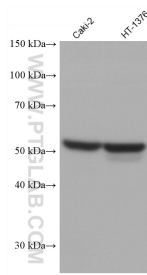
Selected Validation Data



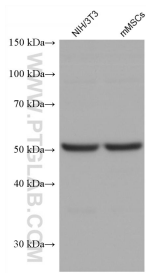
Various lysates were subjected to SDS PAGE followed by western blot with 60242-1-Ig (OCT4 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 60242-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 60242-1-Ig (OCT4 antibody) at dilution of 1:500 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 60242-1-PBS in a different storage buffer formulation.



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