

Immunotag™ Oct-3/4 Monoclonal Antibody

Antibody Specification	
Catalog No.	ITM1067
Product Description	Immunotag™ Oct-3/4 Monoclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	Oct-3/4
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	WB,FCM,IF
Recommended Dilution	Western Blot: 1/1000 - 1/2000. Flow cytometry: 1/100 - 1/200. Immunofluorescence: 1/100 - 1/500. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Purified recombinant human Oct-3/4 protein fragments expressed in E.coli.
Specificity	Oct-3/4 Monoclonal Antibody detects endogenous levels of Oct-3/4 protein.
Purification	Affinity purification
Form	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol.
Gene Name	POU5F1
Accession No.	Q01860 P20263
Alternate Names	POU5F1; OCT3; OCT4; OTF3; POU domain; class 5, transcription factor 1; Octamer-binding protein 3; Oct-3; Octamer-binding protein 4; Oct-4; Octamer-binding transcription factor 3; OTF-3

Antibody Specification

Description	POU class 5 homeobox 1(POU5F1) Homo sapiens This gene encodes a transcription factor containing a POU homeodomain that plays a key role in embryonic development and stem cell pluripotency. Aberrant expression of this gene in adult tissues is associated with tumorigenesis. This gene can participate in a translocation with the Ewing's sarcoma gene on chromosome 21, which also leads to tumor formation. Alternative splicing, as well as usage of alternative AUG and non-AUG translation initiation codons, results in multiple isoforms. One of the AUG start codons is polymorphic in human populations. Related pseudogenes have been identified on chromosomes 1, 3, 8, 10, and 12. [provided by RefSeq, Oct 2013],
Protein Expression	Heart,Kidney,Lung,Peripheral blood leukocyte,Skeletal muscle,
Subcellular Localization	nuclear chromatin,nucleus,nucleoplasm,transcription factor complex,cytoplasm,cytosol,
Protein Function	function:Transcription factor that binds to the octamer motif (5'-ATTTGCAT-3'). Forms a trimeric complex with SOX2 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell pluripotency.,miscellaneous:Several pseudogenes of POU5F1 have been described on chromosomes 1, 3, 8, 10 and 12. 2 of them, localized in chromosomes 8 and 10, are transcribed in cancer tissues but not in normal ones and may be involved in the regulation of POU5F1 gene activity in carcinogenesis.,online information:Oct-4 entry,PTM:Sumoylation enhances the protein stability, DNA binding and transactivation activity. Sumoylation is required for enhanced YES1 expression.,similarity:Belongs to the POU transcription factor family. Class-5 subfamily.,similarity:Contains 1 homeobox DNA-binding domain.,similarity:Contains 1 POU-specific domain.,subcellular location:Expressed in a diffuse and slightly punctuate pattern.,subunit:Interacts with UBE2I.,tissue specificity:Expressed in developing brain. Highest levels found in specific cell layers of the cortex, the olfactory bulb, the hippocampus and the cerebellum. Low levels of expression in adult tissues.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.