

Oct-3/4 Polyclonal Antibody

Catalog No :	YT3233
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	Oct-3/4
Fields :	>>Signaling pathways regulating pluripotency of stem cells
Gene Name :	POU5F1
Protein Name :	POU domain class 5 transcription factor 1
Human Gene Id :	5460
Human Swiss Prot No :	Q01860
Mouse Gene Id :	18999
Mouse Swiss Prot No :	P20263
Immunogen :	The antiserum was produced against synthesized peptide derived from human OCT3. AA range:191-240
Specificity :	Oct-3/4 Polyclonal Antibody detects endogenous levels of Oct-3/4 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml

Storage Stability : -15°C to -25°C/1 year (Do not lower than -25°C)

Observed Band : 50kD

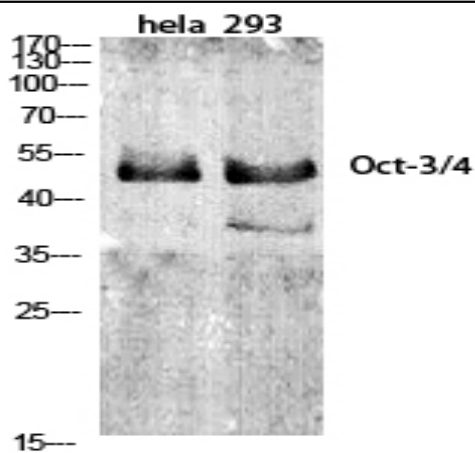
Background : This gene encodes a transcription factor containing a POU homeodomain that plays a key role in embryonic development and stem cell pluripotency. Aberrant expression of this gene in adult tissues is associated with tumorigenesis. This gene can participate in a translocation with the Ewing's 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],

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

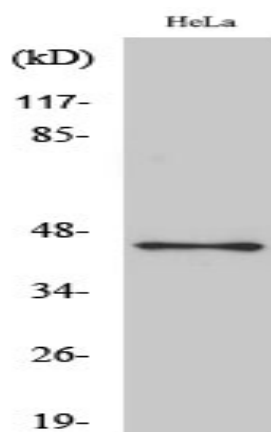
Subcellular Location : Cytoplasm. Nucleus. Expressed in a diffuse and slightly punctuate pattern. Colocalizes with MAPK8 and MAPK9 in the nucleus. .

Expression : 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.

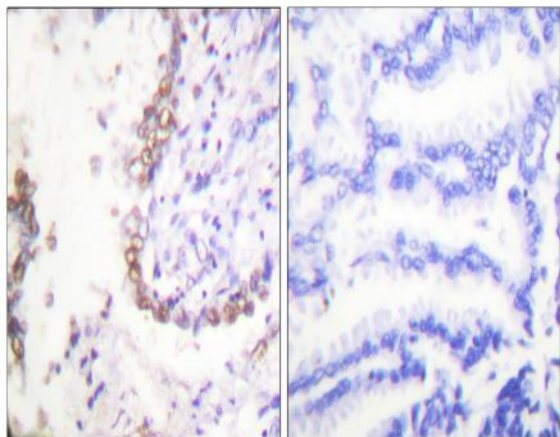
Products Images



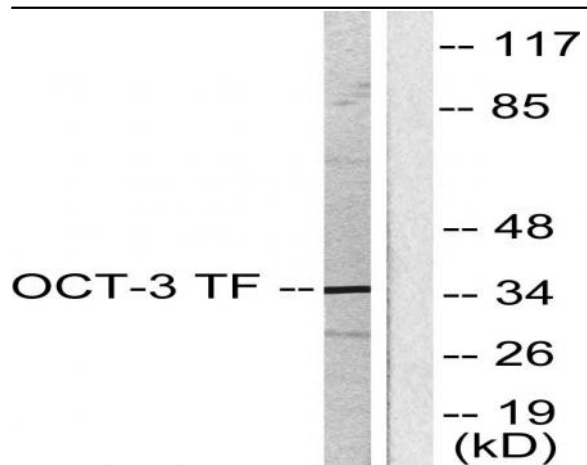
Western Blot analysis of various cells using Oct-3/4 Polyclonal Antibody diluted at 1:1000



Western Blot analysis of HeLa cells using Oct-3/4 Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using OCT3 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from HeLa cells, using OCT3 Antibody. The lane on the right is blocked with the synthesized peptide.