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Anti-OCT4 Antibody

Catalog # AP51441

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q01860
Reactivity	Human, Mouse, Rat, Pig, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38571

Additional Information

Gene ID	5460
Other Names	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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human OCT4. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

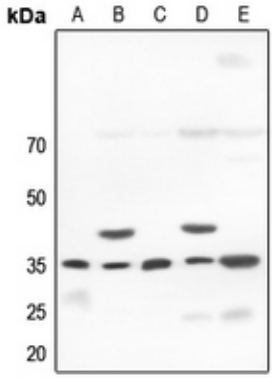
Name	POU5F1
Synonyms	OCT3, OCT4, OTF3
Function	Transcription factor that binds to the octamer motif (5'- ATTTGCAT-3'). Forms a trimeric complex with SOX2 or SOX15 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell pluripotency.
Cellular Location	Cytoplasm. Nucleus. Note=Expressed in a diffuse and slightly punctuate pattern. Colocalizes with MAPK8 and MAPK9 in the nucleus. {ECO:0000250|UniProtKB:P20263, ECO:0000269|PubMed:18191611, ECO:0000269|PubMed:19274063, ECO:0000269|PubMed:23024368}
Tissue Location	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.

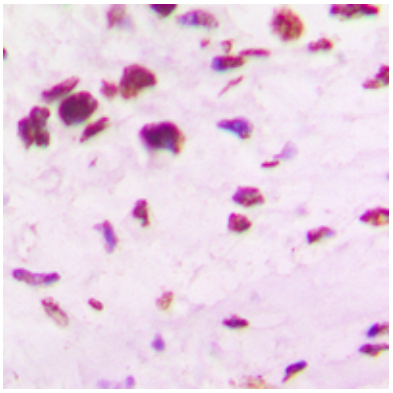
References

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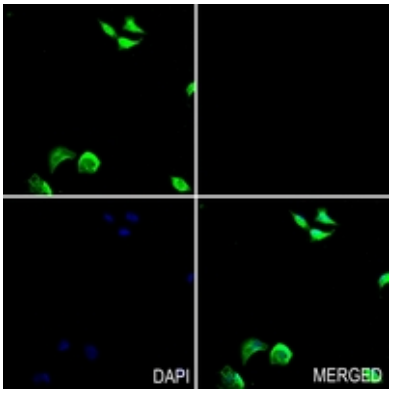
Images



Western blot analysis of OCT4 expression in mouse brain (A), mouse muscle (B), rat brain (C), rat muscle (D), rat liver (E) whole cell lysates. (Predicted band size: 30; 38 kD; Observed band size: 33; 45 kD)



Immunohistochemical analysis of OCT4 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of OCT4 staining in PANC1 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.