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FOXD3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1493a

Product Information

Application	WB, IHC, E
Primary Accession	Q9UJU5
Reactivity	Human, Mouse, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	5G9
Isotype	IgG1
Calculated MW	47630
Description	FoxD3 is a member of the Forkhead Box family and is characterized by a winged-helix DNA-binding structure and the important role it plays in embryonic development . This transcriptional regulator is required for the maintenance of pluripotency in the pre-implantation and peri-implantation stages of mouse embryonic development and is also required for trophoblast formation. FoxD3 is required for the maintenance of the mammalian neural crest; FoxD3(-/-) mouse embryos fail around the time of implantation with loss of neural crest-derived structures. FoxD3 also forms a regulatory network with Oct-4 and NANOG to maintain the pluripotency of ES cells. Promotes development of neural crest cells from neural tube progenitors. Restricts neural progenitor cells to the neural crest lineage while suppressing interneuron differentiation. Required for maintenance of pluripotent cells in the pre-implantation and peri-implantation stages of embryogenesis. Tissue specificity: Expressed in chronic myeloid leukemia, Jurkat T-cell leukemia and teratocarcinoma cell lines, but not in any other cell lines or normal tissues examined.
Immunogen	Purified recombinant fragment of human FOXD3 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	27022
Other Names	Forkhead box protein D3, HNF3/FH transcription factor genesis, FOXD3, HFH2
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FOXD3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FOXD3
Synonyms	HFH2
Function	Binds to the consensus sequence 5'-A[AT]T[AG]TTTGTTT-3' and acts as a transcriptional repressor (PubMed:11891324). Also acts as a transcriptional activator (PubMed:11891324). Negatively regulates transcription of transcriptional repressor RHIT/ZNF205 (PubMed:22306510). Promotes development of neural crest cells from neural tube progenitors (PubMed:11891324). Restricts neural progenitor cells to the neural crest lineage while suppressing interneuron differentiation (PubMed:11891324). Required for maintenance of pluripotent cells in the pre-implantation and peri-implantation stages of embryogenesis (PubMed:11891324).
Cellular Location	Nucleus.
Tissue Location	Expressed in chronic myeloid leukemia, Jurkat T- cell leukemia and teratocarcinoma cell lines, but not in any other cell lines or normal tissues examined.

References

1. J Neuroimmune Pharmacol. 2009 Mar;4(1):103-15. 2. Nature. 2006 May 18;441(7091):315-21.

Images

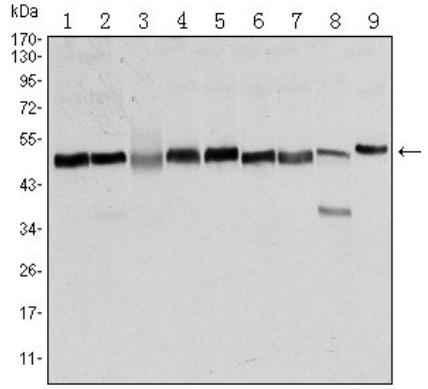


Figure 1: Western blot analysis using FOXD3 mouse mAb against NTERA-2 (1), HUVE-12 (2), HEK293 (3), Hela (4), Jurkat (5), K562 (6), RAW264.7 (7), NIH/3T3 (8), and COS7 (9) cell lysate.

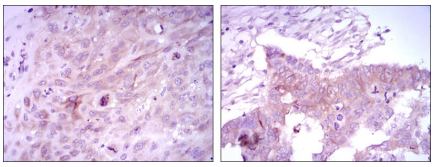


Figure 2: Immunohistochemical analysis of paraffin-embedded lung cancer tissues (left) and ovarian cancer tissues (right) using FOXD3 mouse mAb with DAB staining.

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