

Product datasheet for **MR225487L4V**

Foxa1 (NM_008259) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Foxa1 (NM_008259) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Foxa1
Synonyms:	Hnf-3a; Hnf3a; Tcf-3a; Tcf3a
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_008259
ORF Size:	1404 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR225487).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_008259.3
RefSeq Size:	3188 bp
RefSeq ORF:	1407 bp
Locus ID:	15375
UniProt ID:	P35582
Cytogenetics:	12 24.7 cM



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Gene Summary:

Transcription factor that is involved in embryonic development, establishment of tissue-specific gene expression and regulation of gene expression in differentiated tissues. Is thought to act as a 'pioneer' factor opening the compacted chromatin for other proteins through interactions with nucleosomal core histones and thereby replacing linker histones at target enhancer and/or promoter sites. Binds DNA with the consensus sequence 5'-[AC]A[AT]T[AG]TT[GT][AG][CT]T[CT]-3' (By similarity). Proposed to play a role in translating the epigenetic signatures into cell type-specific enhancer-driven transcriptional programs. Involved in the development of multiple endoderm-derived organ systems such as the liver, pancreas, lungs and prostate; FOXA1 and FOXA2 seem to have at least in part redundant roles. Plays a role in prostate morphogenesis and epithelial cell differentiation. FOXA1 and FOXA2 are essential for hepatic specification. FOXA1 and FOXA2 are required for morphogenesis and cell differentiation during formation of the lung. FOXA1 and FOXA2 are involved in bile duct formation; they positively regulate the binding of glucocorticoid receptor/NR3C1 to the IL6 promoter. FOXA1 and FOXA2 regulate multiple phases of midbrain dopaminergic neuron development; they regulate expression of NEUROG2 at the beginning of mDA neurogenesis and of NR4A2 and EN1 in immature mDA neurons. Modulates the transcriptional activity of nuclear hormone receptors. Is involved in ESR1-mediated transcription. Inhibits NKX2-1-mediated transcription from the SFTPC promoter in lung epithel independently from DNA-binding. Involved in regulation of apoptosis. Involved in cell cycle regulation. Originally described as a transcription activator for a number of liver genes such as AFP, albumin, tyrosine aminotransferase, PEPCK, etc. Interacts with the cis-acting regulatory regions of these genes. Involved in glucose homeostasis; activates the GCG promoter.[UniProtKB/Swiss-Prot Function]