Product datasheet for RR212150L4

Foxp1 (NM_001034131) Rat Tagged Lenti ORF Clone

Product data:

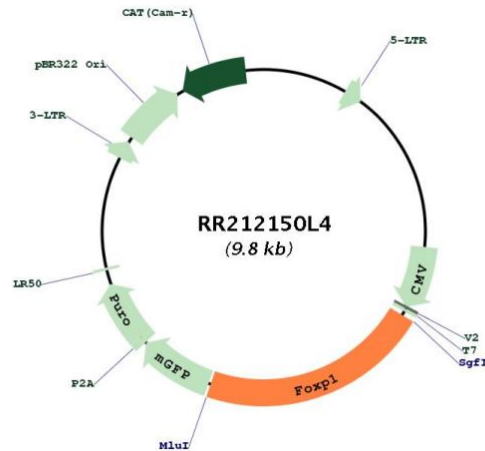|	
Product Type:	Expression Plasmids
Product Name:	Foxp1 (NM_001034131) Rat Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	Foxp1
Synonyms:	MGC116362
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RR212150).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

```
              Sgf I          ORF           Mlu I
        --- GCG ATC GC C  ATG --- // --- NNŇ  ACG CGT ---
```

```
                                                    Kozak
                                                  Consensus
          EcoR I        BamH I       RBS            Sgf I              ORF
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---

--- --- --- --- --- --- NNŇ  ACG CGT ACG CGG CCG CTC GAG ATG AGC GGG GGC --- --- --- ---
                          T   R   T   R   P   L   E   M   S   G   G   - - - -
                        Mlu I          Not I   Xho I          mGFP Tag

--- --- GGA CTC AGA GTT TGG GTA GGA AGC
  -  -   G   L   R   V
```

* The last codon before the Stop codon of the ORF.

Plasmid Map:

ACCN:	NM_001034131
ORF Size:	2133 bp
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.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001034131.1, NP_001029303.1
RefSeq Size:	2328 bp
RefSeq ORF:	2136 bp

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Locus ID:	297480
UniProt ID:	Q498D1
Cytogenetics:	4q34

Gene Summary: Transcriptional repressor. Can act with CTBP1 to synergistically repress transcription but CTPBP1 is not essential. Plays an important role in the specification and differentiation of lung epithelium. Acts cooperatively with FOXP4 to regulate lung secretory epithelial cell fate and regeneration by restricting the goblet cell lineage program; the function may involve regulation of AGR2. Essential transcriptional regulator of B-cell development. Involved in regulation of cardiac muscle cell proliferation. Involved in the columnar organization of spinal motor neurons. Promotes the formation of the lateral motor neuron column (LMC) and the preganglionic motor column (PGC) and is required for respective appropriate motor axon projections. The segment-appropriate generation of spinal chord motor columns requires cooperation with other Hox proteins. Can regulate PITX3 promoter activity; may promote midbrain identity in embryonic stem cell-derived dopamine neurons by regulating PITX3. Negatively regulates the differentiation of T follicular helper cells T(FH)s. Involved in maintenance of hair follicle stem cell quiescence; the function probably involves regulation of FGF18. Represses transcription of various pro-apoptotic genes and cooperates with NF-kappa B-signaling in promoting B-cell expansion by inhibition of caspase-dependent apoptosis. Binds to CSF1R promoter elements and is involved in regulation of monocyte differentiation and macrophage functions; repression of CSF1R in monocytes seems to involve NCOR2 as corepressor. Involved in endothelial cell proliferation, tube formation and migration indicative for a role in angiogenesis; the role in neovascularization seems to implicate suppression of SEMA5B. Can negatively regulate androgen receptor signaling (By similarity). [UniProtKB/Swiss-Prot Function]