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Product datasheet for MC219575

Grhl3 (NM_001013756) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grhl3 (NM_001013756) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Grhl3
Synonyms:	AI561912; ct; Get1; Som; Tfcp2l4
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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Fully Sequenced ORF:

>MC219575 representing NM_001013756
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGAATGAACTTGATTTCAGGTCTGTGCGGTTGCTGAAGAATGACCCTGTGAGCTTCCAGAAGTTTC
CCTACAGTAATGAGGACGAGGCCTGGAAGACATACCTGGAGAACCCTTTGACGGCTGCCACCAAAGCCAT
GATGAGAGTCAACGGGGACGAGGAGAGTGTGGCTGCTCTGAGCTTCCTCTACGACTACTATATGGGTCCC
AAGGAGAAGCGGATACTGTCCTCCAGCACTGGTGGCCGGAATGACCAAGGAAAGAAGTTCTACCACAGCA
TGGACTATGAGCCGGATCTTGCCCCCCTCGAGAGCCCCACACACCTCATGAAATTTTTGACAGAGAACGT
GTCTGGAAGTCCAGACTACACAGACCAGCTCAAGAAAAACAATCTGCTAGGCTTGGAGGGGGTTCTACCC
ACCCCCGGCAAGACCAATACCGTCCCCCCAGGTCCGAGTAAACTGGAAGCCAGCTCCATGGACAGCTACC
TCTTGCCCGCCAGTGACATATATGACAATGGCTCCCTCAACTCATTATTTGAGAGCATTCATGGGGTTCC
ACCCACACAGCGCTGGCAGCCAGACAGCACCTTCAAAGATGACCCACAGGAGTCTCTGCTCTTCCCTGAT
ATTCTGAAGACATCCCCGGACCCCCCATGCCCAGAGGATTATCCAGGCCTCAAGAGTGACTTTGAATACA
CCCTGGGCTCCCCCAAAGCCATTCACATCAAAGCAGGGGAGTCACCCATGGCCTACCTCAACAAGGGTCA
GTTCTACCCCGTCACCCTACGCACCCCAGCAGGAGGGAAAGGCCTCGCTCTGTCCTCCAGCAAAGTCAAG
AGCGTGGTGATGGTCGTGTTCGATAATGACAAGGTCCCCGTGGAGCAGCTGCGTTTCTGGAGGCACTGGC
ATTCCCGGCAGCCCACCGCCAAGCAGCGCGTCATCGACGTAGCTGACTGTAAGGAAAACTTCAACACGGT
CCAGCACATTGAAGAGGTGGCCTATAACGCGCTGTCCTTTGTGTGGAATGTCAACGAGGAAGCCAAGGTG
TTTATCGGTGTCAACTGTCTGAGCACAGACTTCTCCTCGCAGAAGGGAGTGAAGGGTGTCCCCCTGAACT
TGCAAATTGACACCTATGACTGTGGAGCAGGCACTGAGCGCCTGGTACACCGTGCTGTCTGCCAGATCAA
GATCTTCTGTGATAAGGGAGCTGAGAGGAAGATGCGCGATGATGAACGGAAGCAGTTTCGAAGGAAGGTC
AAGTGCCCAGACTCCAGTAACAATGCAGGAATCAAGGGCTGCCTGCTGTCAGGCTTCAGGGGCAATGAGA
CCACATACTTGCGGCCAGAAACTGACCTGGAGACCCAGCCTGTGTTGTTTATCCCCAATCTGCATTTTTC
CAGCCTACAGCGCCCAGGAGGGGTTGTCCCCTCAGCAGGACACAGCAGCTCTGACAGGCTGCCTCTGAAG
CGAACCTGCTCACCCTTTGCTGAGGAGTTTGAGCCTCTTCCTTCTAAACAAGCCAAGGAAGATGACCTTC
AGAGAGTTCTGTTGTATGTGAGGAGGGAGACAGAGGAGGTGTTTGACGCGCTCATGTTGAAGACCCCGGA
CCTGAAGGGCCTGAGGAATGCGATCTCTGAGAAGTACGGCCTCCCCGAGGAGAATATTTGCAAAGTCTAC
AAGAAATGCAAGCGAGGCATCCTGGTTAACATGGACAACAACATCATCCAACACTACAGCAACCACGTGG
CCTTCCTGCTGGACATGGGTGAGCTGGACGGCAAGATCCAGATCATCCTGAAGGAGCTATGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001013756

Insert Size: 1812 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001013756.1, NP_001013778.1
RefSeq Size:	2798 bp
RefSeq ORF:	1812 bp
Locus ID:	230824
UniProt ID:	Q5FWH3
Cytogenetics:	4 67.76 cM
Gene Summary:	Transcription factor playing important roles in primary neurulation and in the differentiation of stratified epithelia of both ectodermal and endodermal origin. Binds directly to the consensus DNA sequence 5'-AACCGGTT-3' acting as an activator and repressor on distinct target genes. Essential for epidermal differentiation and barrier formation at the end of embryogenesis with TGM3 as critical direct target (PubMed:21081122, PubMed:20654612, PubMed:25347468). Exhibits functional redundancy with GRHL2 in epidermal morphogenetic events such as eyelid fusion and epidermal wound repair (PubMed:21081122). Despite being dispensable during normal epidermal homeostasis in the adulthood, is again required for barrier repair after immune-mediated epidermal damage, regulates distinct gene batteries in embryonic epidermal differentiation and adult epidermal barrier reformation after injury (PubMed:25347468). Plays unique and cooperative roles with GRHL2 in establishing distinct zones of primary neurulation. Essential for spinal closure, functions cooperatively with GRHL2 in closure 2 (forebrain/midbrain boundary) and posterior neuropore closure (PubMed:14608380, PubMed:20654612). Also required for proper development of the oral periderm (PubMed:24360809). No genetic interaction with GRHL1, no functional cooperativity due to diverse target gene selectivity (PubMed:21081122).[UniProtKB/Swiss-Prot Function]