

Product datasheet for **MR207428**

Riox2 (NM_025910) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Riox2 (NM_025910) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Riox2
Synonyms:	1810047J07Rik; 2410057H13Rik; 3830408E23Rik; AI449204
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR207428 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCAAAGAAAGTGCAGCCACAGGGGATGAGAACAAGAAGAGTCTGTTCTTCAAGCGGGTGAAGG
 AGGAGCTGCCTGAAACGCTTTCTGTATTAACCTTTGACAGCCCCAGTAGTTTCTTCGAAAGTTTAATCTC
 ACCCATCAAAGTAGAGACTTTTTTCAAGGAATTCTGGGAACAAAAGCCCTTCTCATTGAGAGGATGAC
 CCTGTACTGGCCAAATATTACAGTCTCTGTTACGCTCTCAGATCTGAAGAGACTCTGCAAGAAAGGAG
 TGTACTATGGAAGAGACGTGAATGTCTGCCGAGCATCAGTGGGAAGAAGAAGGTTTTAAATAAGGATGG
 CAGAGCACATTTTCTCAGCTGAGAAAAGATTTTGATCAGAAGAGGGCAACAATTCAGTTTCACCAACCT
 CAGAGATATAAGGATGAGCTGTGCCGATCCAGGAAAAGCTGGAATGTTACTTTGGGTCTTAGTAGGCT
 CGAATGTGTACATGACTCTGCAGGATCTCAGGCGCTCCCTCCACATTATGATGATGTTGAGGTTTTAT
 CCTGCAGCTGGAGGGAACGAAACACTGGCGCCTGTACTCCCAACTGTGCCCTGGCACACGAGTACAGT
 GTGGAATCTGAGGACCGATCGGCACACCGACACACGACTTCCTGCTGAAGCCTGGAGATTGTTGTACT
 TTCCCAGAGGGACCATTATCAGGCAGAACTCCTTCAGGCTGGCTACTCTATTACCTGACTATTAG
 CACCTACCAGAACAATTCATGGGAGACTGCCTTTTGATTCCATTTTCGGGGTTCGATTGACATTGCA
 AAGGAAGATGTGCATTAAGGAGTGGAATGCCCGCGGATGCTCCTGAATGTGGAACCCAGCTGATG
 TAACAAGGAAGTTGAGTGGCTTTCTGAGGACTCTTGACAGACAGCTCGAGGGCAGAGAAGAGCTGCTGTC
 ATCAGATATGAAGAAGGACTTCGTCAGCACAGACTCCCTCCTTTCTTCGAGGGAATGGAACGGAGACG
 ATGGACCCAGGTAAACAGTTGCCAAGTTGGACAACATAATAAGACTGCAGTTCAAAGATCACATTGTCC
 TCACAGTAGGGCCAGATAAGAATCCATTTGATGAAGCTCAACAAAAGTGTTTACATCTATCATTCTCT
 GAAGAATGTGAGGCAGATGCACATGATAGGAGAAGAGGGAATCCGAGATTTTCGGTCTTCGCTTTCTCT
 TTATCACATGTGGATGCTCTGAAGCAAATCTGGTGCGGGTACCAATTCGTGTTAAGGAACTGAAACTTG
 ACACAGATGAAGAAAAGGAGAACCTGGCACTGTCTCTCTGGTGGAGTCTTTAATCCAAGTACTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207428 protein sequence
 Red=Cloning site Green=Tags(s)

MPKKVQPTGDENEEESVPCKRVKEELPETLSVLNFDSPSSFFESLISPIKVETFFKEFWQKPLLIQRDD
 PVLAKYYQSLFSLSDLKRLCKKGVYGRDYNVCRSISGKKKVLNKDGRAHFLQLRKDFDQKRATIQFHQP
 QRYKDELWRIQEKLECYFGLVGSNVYMTAGSQGLPPHYDDVEVFILQLEGTKHWRLYSPTVPLAHEYS
 VESEDRIPTHTDFFLLKPGDLLYFPRGTIHAETPSGLAYSIHLTISTYQNNSWGDCCLDSISGFVFDIA
 KEDVALRSGMPRRMLLNVEPTADVTRKLSGFLRTLADQLEGRELLSSDMKKDFVKHRLPPFFEGNGTET
 MDPGKQLPRLDNIIRLQFKDHIVLTVGPDKNPFDEAQQKVVIYHSLKNVRQMHMIGEEEESEIFGLRFP
 LSHVDALKQIWCSPIRVKELKLDTDEEKENLALSLWSESLIQVL

TRTRPLE**QKL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_025910

ORF Size: 1395 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_025910.2](#), [NP_080186.2](#)

RefSeq Size: 2159 bp

RefSeq ORF: 1398 bp

Locus ID: 67014

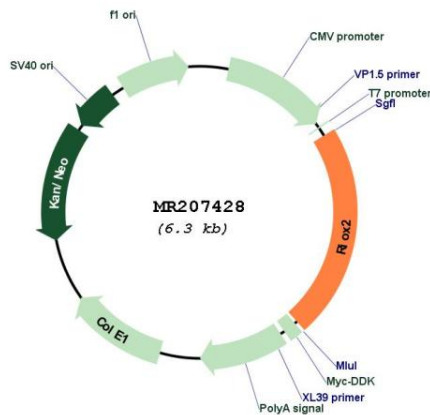
UniProt ID: Q8CD15

Cytogenetics: 16 C1.3

MW: 53.6 kDa

Gene Summary: Oxygenase that can act as both a histone lysine demethylase and a ribosomal histidine hydroxylase. Is involved in the demethylation of trimethylated 'Lys-9' on histone H3 (H3K9me3), leading to an increase in ribosomal RNA expression. Also catalyzes the hydroxylation of 60S ribosomal protein L27a on 'His-39' (By similarity). May play an important role in cell growth and survival. May be involved in ribosome biogenesis, most likely during the assembly process of pre-ribosomal particles.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207428