

Product datasheet for **RN203778**

Riox1 (NM_001108040) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Riox1 (NM_001108040) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Riox1
Synonyms:	No66; RGD1307704
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN203778 representing NM_001108040
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGAGCTTCCGAATGGCAACGGCGCGGCCGCTGAAGCGTGGACGCGGGAGGCGCCGGCCAGC
 CGCAGCCCGCGCGCGTCTGGCCCTGCCCTTACGGCCACGGAAGGTCCGAAGGCACCGGAAAAG
 TCGCGCGTCCCGCGTGGCCGCGCTGAGAGCTCGCGCGCTCCTGAGCGAAGACTCGGACTCGAACGTGGAA
 TCGGTCCGGGGCAAGCGGGAGAGGCTGACAGACTACCGAGGCCTCGCGGTCCGCCAACC CGGCCGG
 TGCCAGTGCCTCCGAGACCGGCTTCGGCGACTCTGCCGCGCCGCTGGAGGGGCGGGCCGCGCTCTCCCG
 AAACCTGGGGAAGCCGCTCCGTTGCCGGGCTCGCACGTGGATGACCCGGAACGGCCCTGGGATTCGCCG
 CTGCAGCAGGTGTTGGCGGAGCTGAACGGCATCCCAGCAGCCGGAGGCGCGCCGCCCTCTTCGAGT
 GGCTCCTGGCGCCCTGCCTCCGACCCTTCTACCGCGGCTGTGGGAGCGGGAGGCGGTGCTGGTGCC
 GCGGCAGGACCACAGCTACTACGAAGTCTATTCTCTACCTCCGACTGGACTGGATGCTGCGCTACGAG
 GACGTGCACTTCGGGCAGCACCTGGATGCTGCGCGCTACATCGATGGGCGCGGGAAACCTGAACCCAC
 CGGGCCGGGCACTTCCCGCTGCCGCGTGGTCTTGTACCAAGCCGGCTGCTCCTTACGCCTCTTTGCC
 GCAAGCTTTCTCGCCACGGTGTGGCAGTTTTTGGCTGTGCTTACGGAACAGTTTGAAGCATGGCAGGC
 TCCAACGTTTACCTCACGCCCCCAACTCGCAGGGCTTCGCTCCCACTACGACGACATCGAGGCTTTCCG
 TGTTACAGCTGGAAGGTCGGAACCTCTGGCGAGTCTACCGACCGCGGGACCCAGTGAAGAGTTGGCACT
 GACATCTAGTCCCACTTACGCCAGGAGACCTGGTGAGCCGGTACTCCAAACGGTACTGGAACCCGGA
 GACCTGCTCTATTTTCTCGGGGCTTATTTCATCAAGTGAATGTCAGGATGGAGTCCATTCTCTGCACC
 TCACCTGTCTACCTACCAGCGCAACACTGGGGCGACTTCTGGAGGCTGTTCTGCCTTGCCATGCA
 GGCAGCAATAGAGGAAAATGTGGAATTTTCGAGGGGCTCGCTCGAGACTTCATGGATTATATGGGGGCC
 CAGCATTACAGACTCTAAGGATCCAGAAGGACAGCTTTCATGGAAAAAGTGCGGTCTTGGTTGCTCGCC
 TGGGACACTTTGCTCCTGTGATGCTGTGGCTGACCAGAGAGCAAAAGACTTCATTACGATTCCCTGCC
 CCCTGTGTTGACGGATAGGGAAGGGCTCTAAGTGTGCACGGGCTCCCGATTGCTGGGAGGCTGGAGAA
 CCTGTAATGTGGGGGCCAGCTGACAACAGAAACCAAGTCCATATGCTTACGATGGCATAGCTCGGC
 TGGTGGGTGAGGGGGCCGCTTGTCTGTATTACACAGTGGAAAACCTCGAGTGTATCATCTGGAGGA
 ACCCAAGTGTAGAAAATACCCCCAGCAAGCCGATGCCATGGAACCTTGTGCGCTCCTACCCAGAG
 TTTGTGAGAGTAGGGGATTTGCCCTGTGACAGTGTGGAAGACCAGCTTTCCTTGGCGACCATGTTATATG
 ATAAGGGGCTGCTGCTCACTAAAACGCCCTAGTCTGAGT**TAG**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001108040
- Insert Size:** 1794 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_001108040.1](#), [NP_001101510.1](#)

RefSeq Size: 2619 bp

RefSeq ORF: 1794 bp

Locus ID: 314300

UniProt ID: [D3ZU57](#)

Cytogenetics: 6q24

Gene Summary: Oxygenase that can act as both a histone lysine demethylase and a ribosomal histidine hydroxylase. Specifically demethylates 'Lys-4' (H3K4me) and 'Lys-36' (H3K36me) of histone H3, thereby playing a central role in histone code. Preferentially demethylates trimethylated H3 'Lys-4' (H3K4me3) and monomethylated H3 'Lys-4' (H3K4me1) residues, while it has weaker activity for dimethylated H3 'Lys-36' (H3K36me2). Also catalyzes the hydroxylation of 60S ribosomal protein L8 on 'His-216'. Acts as a regulator of osteoblast differentiation via its interaction with SP7/OSX by demethylating H3K4me and H3K36me, thereby inhibiting SP7/OSX-mediated promoter activation. May also play a role in ribosome biogenesis and in the replication or remodeling of certain heterochromatic region. Participates in MYC-induced transcriptional activation (By similarity).[UniProtKB/Swiss-Prot Function]