

Product datasheet for **MC221274**

Ezh2 (NM_007971) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ezh2 (NM_007971) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ezh2
Synonyms:	Enx-1; Enx1h; KMT6; mKIAA4065
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221274 representing NM_007971
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCCAGACTGGGAAGAAATCTGAGAAGGGACCGGTTTGTGGCGGAAGCGTGTAAAATCAGAGTACA
 TGAGACTGAGACAGCTCAAGAGGTTTCAGAAGAGCTGATGAAGTAAAGACTATGTTTAGTTCCAATCGTCA
 GAAAAATTTGGAAAGAACTGAAACCTTAAACCAAGAGTGGAAGCAGCGGAGGATACAGCCTGTGCACATC
 ATGACTTCTGTGAGCTCATTGCGCGGGACTAGGGAGTGTTCAGTCACCAGTGACTTGGATTTTCCAGCAC
 AAGTCATCCCCTTAAAGACCCTGAATGCAGTCGCCTCGGTGCCTATAATGTACTCTTGGTCGCCCTTACA
 ACAGAATTTTATGGTGGAAAGACGAACTGTTTTACATAACATTCCTTATATGGGGATGAAGTTCTGGAT
 CAGGATGGCACTTTCATTGAAGAACTAATAAAAAATTATGATGGAAAAGTGCATGGTGACAGAGAATGTG
 GATTTATAAATGATGAAATTTTGTGGAGTTGGTAAATGCTCTTGGTCAATATAATGATGATGATGATGA
 CGATGATGGAGATGATCCAGATGAAAGAGAAGAAAAACAGAAAGATCTAGAGGATAATCGAGATGATAAA
 GAAACTTGCCACCTCGGAAATTCCTGCTGATAAAAATTTTGAAGCCATTTCTCAATGTTCCAGATA
 AGGGCACCGCAGAAAGAACTGAAAGAAAAATATAAAGAAGTACCGAGCAGCAGCTCCCAGGTGCTCTGCC
 TCCTGAATGTAAGTCCAAACATCGATGGACCAATGCCAAATCTGTTTCAGAGGGAGCAAAGCTTGCATTCA
 TTTTCATACGCTCTTCTGTGACGATGTTTTAAGTATGACTGCTTCTACATCCCTTCCATGCAACACCCA
 ACACATAAAGAGGAAGAACACAGAAACAGCTTTGGACAACAAGCCTTGTGGACCACAGTGTACCAGCA
 TCTGGAGGGAGCTAAGGAGTTTGTGCTGCTCTTACTGCTGAGCGTATAAAGACACCACCTAAACGCCCA
 GGGGGCCGAGAAAGGAAGACTTCCGAATAACAGTAGCAGACCCAGCACCCACCACCATCAGTGTGCTGG
 AGTCAAAGGATACAGACAGTGACAGAGAAGCAGGGACTGAAACTGGGGGAGAGAACAATGATAAAGAAGA
 AGAAGAGAAAAAAGATGAGACGTCAGCTCCTCTGAAGCAAATTCGGTGTCAAACACCAATAAAGATG
 AAGCCAAATATTGAACCTCCTGAGAATGTGGAGTGGAGTGGTGTGAAAGCCTCCATGTTTAGAGTCTCA
 TTGGTACTTACTACGATAACTTTTGTGCCATTGCTAGGCTAATTGGGACCAAAACATGTAGACAGGTGTA
 TGAGTTTATAGTCAAGGAGTCCAGTATCATAGCACCTGTTCCCACTGAGGATGTAGACACTCCTCCAAGA
 AAGAAGAAAAGGAAACATCGGTTGTGGGCTGCACACTGCAGAAAGATACTAACTGAAAAGGACGGCTCCT
 CTAACCATGTTTACAACATCAACCCTGTGACCATCCACGGCAGCCTTGTGACAGTTCGTGCCCTTGTGT
 GATAGCACAAAATTTTGTGAAAAGTTTGTCAATGTAGTTCAGAGTGTCAAACCGCTTCTCTGGATGT
 CGGTGCAAAGCACAATGCAACACCAACAGTGTCCATGCTACCTGGCTGTCCGAGAGTGTGACCCTGACC
 TCTGTCTCACGTGTGGAGCTGTGACCATTGGGACAGTAAAAATGTATCCTGTAAGAAGTGTAGCATTCA
 GCGGGGCTCTAAAAGCACTTACTGCTGGCACCGTCTGATGTGGCAGGCTGGGGCATCTTTATCAAAGAT
 CCTGTACAGAAAAATGAATTCATCTCAGAATACTGTGGGGAGATTATTTCTCAGGATGAAGCAGACAGAA
 GAGGAAAAGTGTATGACAAATACATGTGACGCTTCTGTTCAACTGAAACAATGATTTTGTGGTGGATGC
 AACCCGAAAGGGCAACAAAATTCGTTTTGCTAATCATTTCAGTAAATCCAAACTGCTATGCAAAAAGTTATG
 ATGGTTAATGGTGACCACAGGATAGGCATCTTTGCTAAGAGGGCTATCCAGACTGGTGAAGAGTTGTTTT
 TTGATTACAGATACAGCCAGGCTGATGCCCTGAAGTATGTGGGCATCGAACGAGAAATGGAATCCCTTG
 A

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_007971
Insert Size: 2241 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:	<ol style="list-style-type: none">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_007971.2 , NP_031997.2
RefSeq Size:	2665 bp
RefSeq ORF:	2241 bp
Locus ID:	14056
UniProt ID:	Q61188
Cytogenetics:	6 22.92 cM
Gene Summary:	<p>Polycomb group (PcG) protein. Catalytic subunit of the PRC2/EED-EZH2 complex, which methylates (H3K9me) and 'Lys-27' (H3K27me) of histone H3, leading to transcriptional repression of the affected target gene. Able to mono-, di- and trimethylate 'Lys-27' of histone H3 to form H3K27me1, H3K27me2 and H3K27me3, respectively. Displays a preference for substrates with less methylation, loses activity when progressively more methyl groups are incorporated into H3K27, H3K27me0 > H3K27me1 > H3K27me2. Compared to EZH1-containing complexes, it is more abundant in embryonic stem cells and plays a major role in forming H3K27me3, which is required for embryonic stem cell identity and proper differentiation. The PRC2/EED-EZH2 complex may also serve as a recruiting platform for DNA methyltransferases, thereby linking two epigenetic repression systems. Genes repressed by the PRC2/EED-EZH2 complex include HOXA7, HOXB6 and HOXC8. EZH2 can also methylate non-histone proteins such as the transcription factor GATA4 and the nuclear receptor RORA. Regulates the circadian clock via histone methylation at the promoter of the circadian genes. Essential for the CRY1/2-mediated repression of the transcriptional activation of PER1/2 by the CLOCK-ARNTL/BMAL1 heterodimer; involved in the di and trimethylation of 'Lys-27' of histone H3 on PER1/2 promoters which is necessary for the CRY1/2 proteins to inhibit transcription.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). This isoform is also known as ENX-1A.</p>