

## Product datasheet for **MC223125**

### Ubr2 (BC031403) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ubr2 (BC031403) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ubr2
Synonyms:	MGC36320
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>BC031403 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTGATAGAACATCCTCTTAGATGTCTTGCTTATGTGCTCAAGTGCATGCTGGGATGTGGAGAAGAA  
ATGGCTTCTCTAGTAAATCAGATCTATTACTACCATAATGTGAAATGCAGGCGAGAGATGTTTCGACAA  
GGACATAGTGATGCTTCAGACAGGTGTCTCCATGATGGACCCAAACCACTTCTGATGATCATGCTCAGC  
CGCTTTGAACTCTATCAGCTCTTCAGCACGCTGACTATGGGAAGAGATTCAAGTTCGAGTTACCCATA  
AGGACGTCGTTACGACAGAACAACACTCTGATCGAAGAGATGCTCTACCTCATCATCATGCTTGTGGGAGA  
AAGATTCAACCTGGGGTTGGACAGGTGGCTGCCACAGATGAAATCAAGAGGGAGATTATCCATCAGTTG  
AGCATCAAGCCTATGGCTCACAGTGAGCTGGTGAAGTCTCTGCCTGAAGATGAGAACAAGGAGACCCGCA  
TGGAGAGCGTCATCGAGTCCGTTGCACATTTCAAGAACTGGGCTCACAGGGCGAGGCATGTATGAGCT  
GAAGCCAGAGTGTGCCAAAGAGTTCAACCTGTATTTTTATCATTCTCCAGGGCAGAGCAGTCCAAGGCA  
GAGGAAGCTCAGCGAAATTGAAAAGAGAAAATAAGAAGATACAGCACTCCCTCCTCCGGCTTTGCCAC  
CGTTCTGCCCTTTGTTCCGAGTCTGGTTAACATCTTGCACTGTGACGTACATGCTACATCATGGAAC  
GATCCTGCAGTGGCTGTAGAGCATCACGGTCTGCCTGGTCCAGAGTCCATGCTACAGAGGGTCTGCAT  
TTGATCGGGATGGCTCTCCAGGAAGAGAAGCACCACTTGGAGAACGCCGTGGAAGGGCACGTGCAGACCT  
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AGGAGAGCTCAAGAGACAAGGACAAGCAGAGAGGAAAAGAAAAGCCGAGATCGCCAGACTGCGCCGGGA  
GAAGATCATGGCCAGATGTCTGAGATGCAGCGCACTTCATTGACGAAAACAAGAGCTCTCCAGCAG  
ACCCTAGAGCTGGACACCTCTGCCTCTGCCACTTTGACAGCAGCCCTCCGTTTCAGACGAGCTCTTA  
CAGCACTGGGCCAGCACAGACAGGTCCTGAACCGAGACAGTTTGTACCTGTATATTATGTCAAGA  
GGAGCAAGAGGTGACTGTGGGAAGCAGGGCGATGGTCTTGGCAGCGTTTGTTCAGAGGTCAACGGTCTG  
TCAAAAAGACAGGACGAAAACCATCGCGGACCCAGAAAATATGATCCATTATTCATGCACCCGATCTGT



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CTTGTGGGACACACACTGGCAGCTGTGGGCACGTTATGCATGCCATTGTTGGCAAAGGTATTTTGATTC
CGTTCAAGCCAAGGAGCAGCGAAGGCAGCAGCGGCTGCGCTTGCACACTAGCTACGATGTAGAGAATGGC
GAGTTCCTCTGCCCGCTCTGTGAGTGCCTGAGCAACACGGTGATCCCCCTGCTGCTTCTCCCAGGAGCA
TCCTCAGCAGGAGGTTAAATTTTTCAGACCAACCAGATCTGGCACAGTGGACGAGAGCAGTAACACAGCA
GATAAAGGTGGTCCAGATGCTGAGGAGAAAAGCACAATGCTGCTGACACGCTTCTTCAGAGGACACAGAA
GCCATGAATATAATACCGATCCCCGAAGGCTTCAGGCCGATTTTTTATCCTAGGAACCCATATTCTGATA
GCATAAAAAGAAATGTTAACGACATTTGGAACGGCTGCTTACAAGGTGGGACTGAAGTTTCATCCTAATGA
AGGTGACCCCGTGTGCCATCCTGTGCTGGGGGACCTGTGCATACACCATCCAGAGCATAGAAAAGAATT
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CTTCACCAAGTACTGGAAGTGCCTTGAAGAAGCCCCCTCCGGTGGCACCTGTGGAGGAGCGTCCGGG
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AGACCTTCAAGTTTCTGGAACAAGCCATTTTGAACACTTATGTAACACTCTTCCCTACCAACCAACCTC
ATTCACCTTTTTCAAGAAAACAGTGACATCATGAACTCCCTGATTGAAAGTTGGTGCCAGAACAGTGAAG
TTAAACGGTATCTAAATGGCGAGAGAGGAGCGATAAGCTACCCAGAGGAGCTAACAAACTGATAGACCT
TCCAGAGGATTACAGCAGCCTCATTAAACCAAGCATCCAATTTCTCGTGCCCAAAATCAGGTGGCGACAAG
AGCAGAGCTCCTACTCTGTGCCTCGTGTGGGAGTCTCCTCTGCTCTCAGAGTTACTGTGCCAAGCTG
AGCTGGAGGTGAGGACGTCGGAGCCTGCACAGCACACACCTACTCTGCGGCTCCGGGGCCGGCATCTT
CCTGAGAGTCCGGAATGTCAGGTGCTATTTTTAGCTGGCAAACCAAAGGATGTTTTTATTCTCCTCCT
TACCTTGACGACTATGGAGAGACCGAGGACTCAGACGAGGAAATCCTTTACATTTATGCCAAGAGC
GGTTTTCGAAAGATCCAGAAGCTCTGGCAGCAGCATAGTATCACAGAGGAGATCGGACACGCGCAGGAGGC
TAACCAGACCCTGGTCGGAATTGACTGGCAGCATTTATAA

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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** BC031403
- Insert Size:** 3330 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:** [BC031403](#), [AAH31403](#)

RefSeq Size: 3502 bp

RefSeq ORF: 3329 bp

Locus ID: 224826

Cytogenetics: 17 C

**Gene Summary:** E3 ubiquitin-protein ligase which is a component of the N-end rule pathway. Recognizes and binds to proteins bearing specific N-terminal residues that are destabilizing according to the N-end rule, leading to their ubiquitination and subsequent degradation. Plays a critical role in chromatin inactivation and chromosome-wide transcriptional silencing during meiosis via ubiquitination of histone H2A. Binds leucine and is a negative regulator of the leucine-mTOR signaling pathway, thereby controlling cell growth (By similarity). Required for spermatogenesis, promotes, with Tex19.1, SPO11-dependent recombination foci to accumulate and drive robust homologous chromosome synapsis (PubMed:28708824). Polyubiquitinates LINE-1 retrotransposon encoded, LIRE1, which induces degradation, inhibiting LINE-1 retransposon mobilization (PubMed:28806172).[UniProtKB/Swiss-Prot Function]