

Product datasheet for **MG224080**

Brd7 (NM_012047) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Brd7 (NM_012047) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Brd7
Synonyms:	BP75; CELTIX1; Ptpn13ip
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG224080 representing NM_012047
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCAAGAAGCACAAGAAGCACAAGTCGGACCGCCACTTCTACGAGGAGTACGTGGAGAAGCCCCTGA
 AGCTGGTCTCAAAGTCGGGGGAGCGAGGTACCGAGCTCTCCACGGGAGCTCCGGGCACGACTCCAG
 CCTCTTCGAAGACAGAAGCGACCATGACAAACACAAGGACAGAAAACGAAAAAGAGGAAGAAAGCGGAG
 AAGCAGGCTCCGGGGGAAGAGAAGGGGAGAAAACGGAGAAGAGTCAAGGAGGATAAAAAGAAGCGGGATC
 GAGACCGTGCAGAGAATGAGGTGGACAGAGATCTCCAGTGTATGTCCCTATAAGATTAGACTTACCTCC
 TGAGAAGCCTCTTACAAGCTCGTTAGCCAAACAAGAAGAAGTAGAACAGACACCCCTTCAGGAAGCTTTG
 AATCAGCTCATGAGACAATTGCAAAGAAAAGACCAAGTGCTTTCTTTTCATTTCTGTGACGGATTTTA
 TTGCGCCTGGCTACTCCATGATTATTAACACCCAATGGATTTTAGTACCATGAAAGAAAAGATCAAGAA
 TAACGACTACCAGTCCATAGAAGAACTAAAGGATAACTTCAAGCTAATGTGTACTAATGCAATGATTTAC
 AATAAGCCAGAGACCATTATTATAAAGCTGCAAAGAAGCTGTTGCACTCAGGGATGAAAATTTCTAGTC
 AGGAGAGAATTCAGAGCCTGAAGCAGAGTATAGACTTCATGTGCACTTGCAGAAAACCTCGGAAGCAGAA
 AGAACGAACAGATGCCTGTGAGAGTGGGGAGGACAGCGGCTGCTGGCAGCGGAGAGGGAAGACTCTGGA
 GATGCTGAAACACAGGCCCTCAGAAGCCCCGCTAAGGACAATAAAAGGAAAGACAAAAGATGTGCTTGAAG
 ACAAATGGAGAAGCAGCAACTCAGAAAGGGAGCATGAGCAGATTGAGCGCGTTGTCCAGGAGTCAGGAGG
 CAAGCTAACACGGCGGCTGGCAAACAGTCAGTGTGAATTTGAAAGAAGAAAACAGATGGGACAACAACA
 CTGGGGCTTCTCCATCCTGTGGATCCCATTGTGGGAGAGCCAGGCTACTGCCCTGTGAGATTGGGGATGA
 CAACTGGAAGACTGCAGTCTGGAGTGAACACTCTGCAGGGGTTCAAAGAGGATAAAAAGGAACAGAGTAAC
 CCCAGTATTACTTGAATTATGGACCCTACAGTTCTTATGCCCCACATTATGACTCTACATTTGCCAAT
 ATTAGCAAAGATGATTCTGATTTAATCTACTCAACATATGGGGAAGACTCTGACCTTCCAACAATTTCA
 GCATCTCTGAGTTTTTGGCCACATGCCAAGATTACCCGTATGTTATGGCAGATAGTTTACTGGATGTTCT
 AACAAAAGGAGGACATTCAGGAGCCTGCAGGACTTGGACATGTCATCTCCTGAAGATGAAGGCCAGACC
 AGAGCATTGGACACAGCAAAAAGAAGCAGAGATTACACAAATAGAGCCAACAGGGCGTTTGGAGTCCAGCA
 GTCAGGACAGGCTCACAGCACTGCAAGCTGTAACAACCTTTGGTCTCCAGCTGAAGTCTTTGACTCCGA
 AGAGGCTGAGGTGTTCCAGAGGAAGCTTGATGAGACGACAAGATTGCTCAGGGAGCTCCAGGAGGCACAG
 AATGAGCGACTGAGCACTAGGCCTCCTCCAATATGATCTGTCTCCTGGGTCCTTCTTACAGAGAAATGT
 ACCTTGCTGAACAAGTGACCAATAACCTCAAAGAACTCACACAGCAAGTACTCCAGGTGATGTTGTAAAG
 CATAACGGAGTGCAGAAAAGCAATGGGGATTTCTGTTCTTCCCCATCGTGGGAAAACAGCTTCGTAGAT
 TTGACAGGAGAGTGTGAAGAACCTAAGGAGACCAGCACTGCTGAGTGTGGGCCTGACCGGAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG224080 representing NM_012047
 Red=Cloning site Green=Tags(s)

MGKHKHKHKSDFHYEYVEKPLKLVKVGSEVTELTSGSSGHDSSLFEDRSDHDKHKDRKRKRKKG
 KQAPGEEKGRKRRRVKEDKKRDRDRAENEVDRDLQCHVPIRLDLPEKPLTSSLAKQEEVEQTPLQEAL
 NQLMRQLQRKDP SAFFSFPVDFIAPGYSMIKHPMDFSTMKEKIKNNDYQSIEELKDNFKLMCTNAMIY
 NKPETIYYKAAKLLHSGMKILSQERIQSLKQSIDFMSDLQKTRKQKERTDACQSGEDSGCWQRE REDSG
 DAETQAFRSPAKDNKRKDKDVL EDKWRSSNSEREHEQIERVVQESGGKLRRLANSQCEFERRPDGT
 TLLGLLHPVDPIVGEPPGYCPVRLGMTTGR LQSGVNTLQGFKEDKRN RVTPVLYLNYGPYSSYAPHYDSTFAN
 ISKDDSDLIYSTYGEDSDL PNNFSISEFLATCQDYPYVMADSLLDVLTGKGHSRSLQDLDMSSPEDEGQT
 RALDTAKEAEITQIEPTGRLESSQDRLTALQAVTTFGAPAEVFDSEAEVFRKLDDETRLLRELQEAQ
 NERLSTRPPPMICLLGPSYREMYLAEQVTNNL KELTSQVTPGDVVSIHGVRKAMGISVPSPIVGN SFVD
 LTGECEEPKETSTAECGP DAS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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              Kozac
              Consensus
              Sgf I   Asc I
EcoR I       BamH I Kpn I   RBS
CTATAGGCGCGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT

Hind III     Nhe I   Rsr II   Mlu I       Not I     Xho I       GFP Tag
CAAGCTTAAGTACTAGCTAGCGGACCG  ACG CGT  ACG CGG  CCG CTC GAG  ATG GAG  AGC GAC  -----
                               T   R   T   R   P   L   E   M   E   S   D   -   -   -

Pme I       Fse I
----- GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT
- - - E E R V Stop
    
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ACCN: NM_012047

ORF Size: 1953 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.

RefSeq: [NM_012047.3](#)

RefSeq Size: 2370 bp

RefSeq ORF: 1956 bp

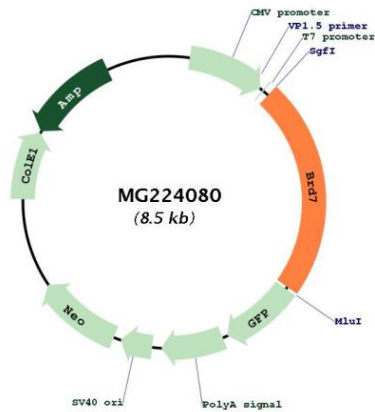
Locus ID: 26992

UniProt ID: [O88665](#)

Cytogenetics: 8 C3

Gene Summary: Acts both as coactivator and as corepressor. May play a role in chromatin remodeling. Transcriptional corepressor that down-regulates the expression of target genes. Binds to target promoters, leading to increased histone H3 acetylation at 'Lys-9' (H3K9ac). Binds to the ESR1 promoter. Recruits BRCA1 and POU2F1 to the ESR1 promoter. Coactivator for TP53-mediated activation of transcription of a set of target genes. Required for TP53-mediated cell-cycle arrest in response to oncogene activation. Promotes acetylation of TP53 at 'Lys-382', and thereby promotes efficient recruitment of TP53 to target promoters. Inhibits cell cycle progression from G1 to S phase (By similarity). Activator of the Wnt signaling pathway in a DVL1-dependent manner by negatively regulating the GSK3B phosphotransferase activity. Induces dephosphorylation of GSK3B at 'Tyr-216'. Down-regulates TRIM24-mediated activation of transcriptional activation by AR.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG224080