

Product datasheet for **MG226586**

Daxx (NM_007829) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Daxx (NM_007829) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Daxx
Synonyms:	MGC150289
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG226586 representing NM_007829
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCACCGATGACAGCATCATTGTACTTGTATGATGACGATGAAGATGAAGCTGCTGCTCAACCAGGGC
 CCTCCAACCTACCCCAATCCTGCCTCAACAGGACCTGGTCTGGCCTGTCTCAACAGGCCACTGGTCT
 CTCGAGCCCGTGTGGATGGAGGGAGCAGTAACCTCCGGTAGTAGGAAGTGTACAAAGTTGGATAATGAG
 AAGCTCTTTGAAGAGTTCCTTGAAGTGTGAAGACGGAGACATCAGACCACCTGAGGTGGTTCCGTTC
 TCCACAACTGCAGCAGCGTGCCAGTCTGTGTTCTGGCCTCTGCAGAGTCTGCAACATCCTCTCCAG
 GGTTCGGCTCGGTCTCGGAAGCGGCCGCTAAGATCTATGTGTACATTAACGAGCTCTGCACTGTTCTT
 AAAGCTCACTCCATCAAGAAGAAGTTGAAGTCTAGCTCTGCAGCCTCAACGACCAGTGGAGCGTCGGCC
 CTAACCTCCCACAGAGCCCTCTGACCTTACAAACTGAAAACACTGCCTCTGAGGCCCAAGGAC
 TCGCGGTTCCCGAGGCAGATCCAGCGCTGGAGCAGCTGCTGGCACTGTACGTAGCCGAGATTCGCGCG
 CTGCAGGAGAAGGAGTTGGACCTGTGAGAGCTGGATGACCCAGACTCCTCGTATTGTCAGGAGGCCCGCT
 TGAAGAGGAAGTTGATCCGCCTCTTCGGGCGGTTGTGTGAGTTGAAGGACTGCTCTTCTGACGGGGCG
 GGTATAGAGCAGCGAATTCGTACCGAGGCACCCGGTACCCAGAGGTCAACAGGCGCATTGAACGGCTC
 ATTAACAAGCCGGGGCTGGACACCTTCCCGATTATGGAGATGTGCTGAGAGCCGTGGAGAAGGCGCGCA
 CCCGGCACAGCCTGGGCTTCCCAGACAGCAGCTTCACTCTGAGCTCCTGGCTCAGGATGCCTTCCGGGACGTGGG
 CGTCAGGTTACAGGAGCGGCGCCACCTGGATCTCATCTACAATTTGGCTGTCACCTCACAGATGACTAT
 AGGCCAGGCGTTGACCCGCACTGTCTGATCCCACATTTGGCTCGCCGCTTCCGGGAAAATCGAACCTTGG
 CGATGAACCGGCTGGATGAGGTCACTCCAAGTATGCAATGATGCAAGACAAGACTGAGGAGGGCGGAGAG
 ACAGAAGAGACGAGCCCGCTTAGGACCCGCCCAACCTTACAGACCCCAAGCTCCTCGGAA
 TCTGGTGAAGGCTCTAGCGGAATGGCATCCCAGGAGTGCCTACTACCTCAAAGCTGAGACTGATGATG
 ACGATGATGACGATGATGACGACGACGAAGATAACGAGGAAAGTGAAGGAGGAGGAGGAGGAAGAGGA
 GGAGAAAGAGGCTACTGAAGATGAAGATGAGGATCTAGAACAGTTGCAGGAAGATCAGGGGGGTGATGAA
 GAAGAGGAAGGAGGAGATAATGAAGGAAATGAGAGTCCCACATCGCCTTCCAGACTTTTCCATAGAAGGA
 ATTCAGAGCCTGCAGAAGGGCTCAGGACCCCGAGGGGAGCAAAAGAGAGGACTGACAGAGACCCAGC
 ATCCCGCCAGGGGATCCCTGGACCTCCCAGCACTGACGCTGAGAGCAGTGGAGAGCAGCTCCTCGAG
 CCGCTCCTGGGAGACGAGAGTCTGTGTCCAGCTCGCTGAGCTAGAGATGGAAGCTTTGCCTGAGGAAA
 GGGACATTTCTCCTCCAGGAAAAGTCGGAAGATTCCCTCCCAACCTTGGAAAATGGGGCAGCTGT
 GGTACCTCTACATCTGTCAATGGGCGTGTCTTCTCACACTTGGAGAGATGCCAGTCCCCCAGCAAG
 AGATTTCCGAAGGAAAAGAAGCAACTGGGCTCTGGACTGTTAGGAAACAGCTATATAAAAGAACCGATGG
 CACAGCAGGACAGTGGGAGAACACAAGTGTCCAGCCTATGCCATCCCCCCTTGGCCTCTGTGGCTTC
 TGTGCTGATTCTCCACAAGGGTGGACTCTCCAGCCATGAACTGGTGACCAGCTCTGTGTCAGCCCT
 TCTCCATCCCTGCTTCTCCAGACACCCAGGCTCAGTCTCTCCGGCAGTGATTTATAAGACCAGTGTGG
 CCACACAGTGGACCCGGAGGAGATCATCGTGTCTTTCAGACTCTGAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG226586 representing NM_007829
 Red=Cloning site Green=Tags(s)

MATDDSIIVLDDDDDEDEAAAQPGPSNLPNPASTGPGPGLSQQATGLSEPRVDGGSSNSGSRKCYKLDNE
 KLFEELFLELCKTETSDHPEVVPFLHKLQRAQSVFLASAEFCNILSRVLRARSRKRPAKIYVYINELCTVL
 KAHSIKKLNLA PAASTTSEASGPNPTEPPSDLTNTENTASEASRTRGSRRIQRLEQLLALYVAEIRR
 LQEKELDLSELDDPDSSYLQEARLKRKLI RLFGR LCELKDCSSLTGRVIEQRIPYRGTRYPEVNRRIERL
 INKPGLDTFPDYGDVLR AVEKAATRHS LGLPRQQLQLLAQDAFRDVGVR LQERRHLDLIYNFGCHLTDDY
 RPYGVPALSDPTLARRLRENRTLAMNRLDEVI SKYAMMQDKTEEGERQKRRARLLGTAPQSPDPPKASSE
 SGEGPSGMASQECPTT SKAETDDDDDDDDDDDEDNEE EEEEEEEEEEEKEATEDEDEDLEQLQEDQGGDE
 EEEGGDNEGNE SPTSPSDFHRRNSEPAEGLRTP EGQQRGLTETPASPPGASLDPPSTDAESSGEQLLE
 PLLGDESPVSQLAELEMEALPEERDISSSRKKS EDSLPTILENGAAVVTSTSVNGRVSSHTWRDASPPSK
 RFRKEKKQLGSGLLGNSYIKEPMAQQDSGQNTSVQPMSPPLASVASVADSSTRVDSPSHELVTSSL CSP
 SPSLLLQTPQAQSLRQC IYKTSVATQCDPEEII VLSDS

TRTRPLE - GFP Tag - V

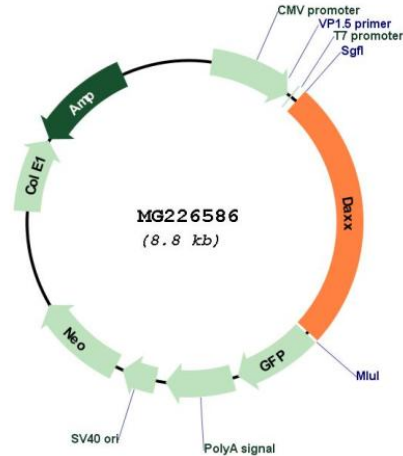
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_007829

ORF Size: 2220 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_007829.3](#), [NP_031855.3](#)

RefSeq Size: 2598 bp

RefSeq ORF: 2223 bp

Locus ID: 13163

UniProt ID: [O35613](#)

Cytogenetics: 17 17.98 cM

Gene Summary: Transcription corepressor known to repress transcriptional potential of several sumoylated transcription factors. Down-regulates basal and activated transcription. Its transcription repressor activity is modulated by recruiting it to subnuclear compartments like the nucleolus or PML/POD/ND10 nuclear bodies through interactions with MCSR1 and PML, respectively. Seems to regulate transcription in PML/POD/ND10 nuclear bodies together with PML and may influence TNFRSF6-dependent apoptosis thereby. Inhibits transcriptional activation of PAX3 and ETS1 through direct protein-protein interactions. Modulates PAX5 activity; the function seems to involve CREBBP. Acts as an adapter protein in a MDM2-DAXX-USP7 complex by regulating the RING-finger E3 ligase MDM2 ubiquitination activity. Under non-stress condition, in association with the deubiquitinating USP7, prevents MDM2 self-ubiquitination and enhances the intrinsic E3 ligase activity of MDM2 towards TP53, thereby promoting TP53 ubiquitination and subsequent proteasomal degradation. Upon DNA damage, its association with MDM2 and USP7 is disrupted, resulting in increased MDM2 autoubiquitination and consequently, MDM2 degradation, which leads to TP53 stabilization. Acts as histone chaperone that facilitates deposition of histone H3.3. Acts as targeting component of the chromatin remodeling complex ATRX:DAXX which has ATP-dependent DNA translocase activity and catalyzes the replication-independent deposition of histone H3.3 in pericentric DNA repeats outside S-phase and telomeres, and the in vitro remodeling of H3.3-containing nucleosomes. Does not affect the ATPase activity of ATRX but alleviates its transcription repression activity. Upon neuronal activation associates with regulatory elements of selected immediate early genes where it promotes deposition of histone H3.3 which may be linked to transcriptional induction of these genes. Required for the recruitment of histone H3.3:H4 dimers to PML-nuclear bodies (PML-NBs); the process is independent of ATRX and facilitated by ASF1A; PML-NBs are suggested to function as regulatory sites for the incorporation of newly synthesized histone H3.3 into chromatin. Proposed to mediate activation of the JNK pathway and apoptosis via MAP3K5 in response to signaling from TNFRSF6 and TGFBR2. Interaction with HSPB1/HSP27 may prevent interaction with TNFRSF6 and MAP3K5 and block DAXX-mediated apoptosis. In contrast, in lymphoid cells JNC activation and TNFRSF6-mediated apoptosis may not involve DAXX. Plays a role as a positive regulator of the heat shock transcription factor HSF1 activity during the stress protein response (By similarity).[UniProtKB/Swiss-Prot Function]