

Product datasheet for MC228821

Daxx (NM_001199733) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Daxx (NM_001199733) Mouse Untagged Clone

Tag: Tag Free
Symbol: Daxx

Synonyms: MGC150289

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Cell Selection: Neomycin

OriGene Technologies, Inc.

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Fully Sequenced ORF:

>MC228821 representing NM_001199733

Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCCACCGATGACAGCATCATTGTACTTGATGATGACGATGAAGATGAAGCTGCTGCTCAACCAGGGC CCTCCAACCTACCCCCAATCCTGCCTCAACAGGACCTGGTCCTGGCCTGTCTCAACAGGCCACTGGTCT CTCCGAGCCCCGTGTGGATGGAGGGAGCAGTAACTCCGGTAGTAGGAAGTGCTACAAGTTGGATAATGAG AAGCTCTTTGAAGAGTTCCTTGAACTGTGTAAGACGGAGACATCAGACCACCCTGAGGTGGTTCCGTTCC TCCACAAACTGCAGCAGCGTGCCCAGTCTGTGTTTCTGGCCTCTGCAGAGTTCTGCAACATCCTCTCCAG GGTTCTGGCTCGGTCTCGGAAGCGGCCCGCTAAGATCTATGTGTACATTAACGAGCTCTGCACTGTTCTT AAAGCTCACTCCATCAAGAAGAAGTTGAACTTAGCTCCTGCAGCCTCAACGACCAGTGAGGCGTCGGGCC CTAACCCTCCCACAGAGCCCCCCTCTGACCTTACAAACACTGAAAACACTGCCTCTGAGGCCTCAAGGAC TCGCGGTTCCCGGAGGCAGATCCAGCGCCTGGAGCAGCTGCTGGCACTGTACGTAGCCGAGATTCGGCGG CTGCAGGAGAAGGAGTTGGACCTGTCAGAGCTGGATGACCCAGACTCCTCGTATTTGCAGGAGGCCCGCT TGAAGAGGAAGTTGATCCGCCTCTTCGGGCGGTTGTGTGAGGACTGCTCTTCTCTGACGGGGCG GGTCATAGAGCAGCGAATTCCGTACCGAGGCACCCGGTACCCAGAGGTCAACAGGCGCATTGAACGGCTC ATTAACAAGCCGGGGCTGGACACCTTCCCCGATTATGGAGATGTGCTGAGAGCCGTGGAGAAGGCGGCGA CCCGGCACAGCCTGGGCCTTCCCAGACAGCAGCTTCAGCTCCTGGCTCAGGATGCCTTCCGGGACGTGGG CGTCAGGTTACAGGAGCGGCGCCACCTGGATCTCATCTACAACTTTGGCTGTCACCTCACAGATGACTAT AGGCCAGGCGTTGACCCCGCACTGTCTGATCCCACATTGGCTCGCCGCCTTCGGGAAAATCGAACCTTGG CCATGAACCGGCTGGATGAGGTCATCTCCAAGTATGCAATGATGCAAGACAAGACTGAGGAGGGCGAGAG ACAGAAGAGACCAGGCTCTTAGGCACCGCCCCCAACCTTCAGACCCCCCAAAGCCTCCTCGGAA TCTGGTGAGGGTCCTAGCGGAATGGCATCCCAGGAGTGCCCTACTACCTCCAAAGCTGAGACTGATGATG ACGATGATGACGATGATGACGACGACGAAGATAACGAGGAAGGTGAGGAGGAGGAGGAGGAAGA GGAGGAGAAAGAGGCTACTGAAGATGAAGATGAGGATCTAGAACAGTTGCAGGAAGATCAGGGGGGTGAT GAAGAAGAGGAAGGAGGAGATAATGAAGGAAATGAGAGTCCCACATCGCCTTCAGACTTTTTCCATAGAA AGCATCCCCGCCAGGGGCATCCCTGGACCCTCCCAGCACTGACGCTGAGAGCAGTGGAGAGCAGCTCCTC GAGCCGCTCCTGGGAGACGAGAGTCCTGTGTCCCAGCTCGCTGAGCTAGAGATGGAAGCTTTGCCTGAGG TGTGGTTACCTCTACATCTGTCAATGGGCGTGTCTCTTCTCACACTTGGAGAGATGCCAGTCCCCCCAGC AAGAGATTTCGGAAGGAAAAGAAGCAACTGGGCTCTGGACTGTTAGGAAACAGCTATATAAAAGAACCGA TTCTGTCGCTGATTCCTCCACAAGGGTGGACTCTCCCAGCCATGAACTGGTGACCAGCTCTCTGTGCAGC CCTTCTCCATCCCTGCTTCTCCAGACACCCCAGGCTCAGTCTCTCCGGCAGTGTATTTATAAGACCAGTG TGGCCACACAGTGCGACCCGGAGGAGATCATCGTGCTTTCAGACTCTGATTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul

ACCN: NM_001199733

Insert Size: 2223 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).



OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal

tag.

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: <u>NM 001199733.1, NP 001186662.1</u>

 RefSeq Size:
 2698 bp

 RefSeq ORF:
 2223 bp

 Locus ID:
 13163

 UniProt ID:
 035613

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 nonstress condition, in association with the deubiquitinating USP7, prevents MDM2 selfubiquitination 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 H3.3containing 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]

Transcript Variant: This variant (1) represents the longer transcript. Both variants 1 and 2 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.