OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC128176

EXD2 (NM_018199) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EXD2 (NM_018199) Human Untagged Clone
Tag:	Tag Free
Symbol:	EXD2
Synonyms:	C14orf114; EXDL2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC128176 sequence for NM_018199 edited (data generated by NextGen Sequencing)

ATGGCCTCCCCAAGTGGCCTGTGTGTCTTGGTTCGCCTGCCCAAGCTAATCTGTGGAGGA
AAAACACTACCAAGAACGTTATTGGATATTTTGGCAGATGGCACCATTTTGAAAGTTGGA
GTGGGATGCTCAGAAGATGCCAGCAAGCTTCTGCAGGATTATGGCCTCGTTGTTAGGGGG
TGCCTGGACCTCCGATACCTAGCCATGCGGCAGAGAAACAATTTGCTCTGTAATGGGCTT
AGCCTGAAGTCCCTCGCTGAGACTGTTTTGAACTTTCCCCTTGACAAGTCCCTTCTACTT
CGTTGCAGCAACTGGGATGCTGAGACTCTCACAGAGGACCAGGTAATTTATGCTGCCAGG
GATGCCCAGATTTCAGTGGCTCTCTTTCTTCATCTTCTTGGATACCCTTTCTCTAGGAAT
TCACCTGGAGAAAAAAACGATGACCACAGTAGCTGGAGAAAAGTCTTGGAAAAATGCCAG
GGTGTGGTCGACATCCCATTTCGAAGCAAAGGAATGAGCAGATTGGGAGAAGAGGTTAAT
GGGGAAGCAACAGAATCTCAGCAGAAGCCAAGAAATAAGAAGTCTAAGATGGATGGGATG
GTGCCAGGCAACCACCAAGGGAGAGACCCCAGAAAACATAAAAGAAAGCCTCTGGGGGTG
GGCTATTCTGCCAGAAAATCACCTCTTTATGATAACTGCTTTCTCCATGCTCCTGATGGA
CAGCCCCTCTGCACTTGTGATAGAAGAAAAGCTCAGTGGTACCTGGACAAAGGCATTGGT
GAGCTGGTGAGTGAAGAGCCCTTTGTGGTGAAGCTACGGTTTGAACCTGCAGGAAGGCCC
GAATCTCCTGGAGACTATTACTTGATGGTTAAAGAGAACCTGTGTGTAGTGTGTGGCAAG
AGAGACTCCTACATTCGGAAGAACGTGATTCCACATGAGTACCGGAAGCACTTCCCCATC
GAGATGAAGGACCACAACTCCCACGATGTGCTGCTGCTCTGCACCTCCTGCCATGCCATT
TCCAACTACTATGACAACCATCTGAAGCAGCAGCTGGCCAAGGAGTTCCAGGCCCCCATC
GGCTCTGAGGAGGGCTTGCGCCTGCTGGAAGATCCTGAGCGCCGGCAGGTGCGTTCTGGG
GCCAGGGCCCTGCTCAACGCGGAGAGCCTGCCTACTCAGCGAAAGGAGGAGCTGCTGCAA
GCACTCAGAGAGTTTTATAACACAGACGTGGTCACAGAGGAGATGCTTCAAGAGGCTGCC
AGCCTGGAGACCAGAATCTCCAATGAAAACTATGTTCCTCACGGGCTGAAGGTGGTGCAG
TGTCACAGCCAGGGTGGCCTGCGCTCCCTCATGCAGCTGGAGAGCCGCTGGCGTCAGCAC
TTCCTGGACTCCATGCAGCCCAAGCACCTGCCCCAGCAGTGGTCAGTGGACCACAACCAT
CAGAAGCTGCTCCGGAAATTCGGGGAAGATCTTCCCATCCAGCTGTCTTGA

Clone variation with respect to NM_018199.3

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_018199 unedited

ACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCTCGTGCCGAATTCGGCACGA
GGATCAAATCGAGCCCTTGCTTAGAAGTGAATTAGAAGATTTTCCAGTACTTGGAATTGA
CTGTGAGTGGGTAAATTTGGAAGGCAAAGCCAGCCCTCTGTCACTTCTACAAATGGCCTC
CCCAAGTGGCCTGTGTGTCTTGGTTCGCCTGCCCAAGCTAATCTGTGGAGGAAAAACACT
ACCAAGAACGTTATTGGATATTTTGGCAGATGGCACCATTTTGAAAGTTGGAGTGGGATG
CTCAGAAGATGCCAGCAAGCTTCTGCAGGATTATGGCCTCGTTGTTAGGGGGTGCCTGGA
CCTCCGATACCTAGCCATGCGGCAGAGAAACAATTTGCTCTGTAATGGGCTTAGCCTGAA
GTCCCTCGCTGAGACTGTTTTGAACTTTCCCCTTGACAAGTCCCTTCTACTTCGTTGCAG
CAACTGGGATGCTGAGACTCTCACAGAGGACCAGGTAATTTATGCTGCCAGGGATGCCCA
GATTTCAGTGGCTCTCTTTCTTCATCTTCTTGGATACCCTTTCTCTAGGAATTCACCTGG
AGAAAAAAACGATGACCACAGTAGCTGGAGAAAAGTCTTGGAAAAATGCCANGGTGTGGT
CGACATCCCATTTCGAAGCNAGGAATGAGCAGATTGGGAGAAAGAGGTTAATGGGGAAGA
ACAGAATCTCAGCAGAAGCCAGAAATAAGAGTCTAGATGGATGGGATGGTGCCCAGGCAC
CACCAGGGAGAGACCCAGAAACTAAAGAAGCTCTGGGGGGTGGGCTATCTGCAAAAATAC
CTCTTAGATACTGCTTCTTCTGCTCTGAGGGAAGCCCTTGGACTGTGAAGAGAAACTTAN
TGTACTGACAGGCATGTGANCTGGAGGAAACCCTTTGGAAACACCGTTACCCTCGGAGGC
CATTT

3' Read Nucleotide Sequence:

>OriGene 3' genomic read for NM_018199 unedited
CGGCCGCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTTGAAATTTAAAATTTTATTTTT
TTACCTTTTTTTTACATTTTTATTTTAAAATAAACAGTGTTTCCAAAAAACATTGACTAC
AAGGGGGAAATGAGGCAATAAGGTTGGAAGAAGGGAAGGACTCAAGAAGAAATGCTGAAC
CTGCAAACACAATGATCAGGGAGCATGCAGAGAGGCCCTTGCTGTGACACTGTCCTCTCA
CTGCTACTCCTATGAAGCCCAGTGACTATGCTGGGACACTGGAGCTAAAGGGTCAAAGAG
AAGCATTTCATTCCTAAAAGGTGATGTCAATTTGTACTTAGCCCCAGCAATGTGAATCCC
CCTCTTCACAGTCCAATTCTAAGATTCCATTCTTAAGAAATTACCAAAGATAGAGCCAAA
GAGATATATACAAGAAACTTTATCACATCATCATTGATAATAAAAGTATCTGAAACAACC
AAAATTTTCAACAGTGTGGGGATGGATAAGGTAGAACCACTAGAAATCTATTTTCAAAGA
TTTAAAAACATAGGAAGTTACTCGTGATACCATGTTAATCAGTGAGAGGGTAAAGTTAGG
ATACCAACCTGTATCTATGTATGACCTTCAATTTTGTGTAAATATACACCTTATATGCAC
TTTTTAATACTGAAAGGAAATTCATAAACATATCAGCAAAGTTTAGCTCTGTTTTAGATG
GAGAGAAGATGGCTAATTTTTATTCTTTGNTTAGATTCTTCTGTAATGAGCATTGTTACT
TTTATATCAGAAAAATAGACATTTGCCATANNATAAGTCTACCCTCAATCTCTGATTTAG
ACGACATTTGTAGTCTTTAGAAAAGCTGCNTAAGTCAAGCAGACTCAAGAAAAAGATTCA
ATCTAACAGTGACTCTCCCTGAAAAGATGAGAAATCTGTGTGACGCANCTGGCTTTTCCT
CTACTTGCTGNGGCTTT

Restriction Sites: NotI-NotI

ACCN: NM_018199

Insert Size: 4250 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: NM_018199.1, NP_060669.1

RefSeq Size: 2833 bp

RefSeq ORF: 1491 bp

Locus ID: 55218

UniProt ID: Q9NVH0

Cytogenetics: 14q24.1

Domains: 3_5_exonuclease

Gene Summary: Exonuclease required for double-strand breaks resection and efficient homologous recombination. Plays a key role in controlling the initial steps of chromosomal break repair, it is recruited to chromatin in a damage-dependent manner and functionally interacts with the MRN complex to accelerate resection through its 3'-5' exonuclease activity, which efficiently processes double-stranded DNA substrates containing nicks.[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (5) is missing 2 internal exons compared to variant 1. This results in translation initiation from an in-frame downstream AUG and a shorter isoform (2) compared to isoform 1. 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.