

Product datasheet for **MC220719**

Smarcad1 (BC042442) Mouse Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Smarcad1 (BC042442) Mouse Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Smarcad1 |
| Synonyms: | AV081750; AW226546; D6Pas1; Etl1; mKIAA1122 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



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Fully Sequenced ORF: >BC042442
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGGAGCCATTGCTGCTGCCTTGCTGATGTTTGGTATGCAGGTGGTGGACCCAGGAAAAGGAAAT
 TATCTTCTTCTTGAGGAGGATGACGTTAATGATGATCAGTCTGTAAAACAGCCGAGGGGACCGTGG
 AGAAGAATCAAATGAGTCTGCAGAAGCCAGCAGCAACTGGGAAAAGCAAGAAAGTATTGTGTTGAAATTG
 CAAAAGGAATTTCCAAATTTTGATAAACAGGAATTAAGAGAAGTGCTTAAGGAGCATGAGTGGATGTACA
 CAGAAGCCTTGGAGTCTCTGAAAGTGTTCGCGAAGATCAAGACGTGCAGTGTGCTTCACAAAGTGAAGT
 TACAAATGAAAAGAAGTTGCAAGGAATCAAATATTCTAAAAATGCAACTAAAATAAAAATGAAACAG
 AAAATTTCCGTGAAACCACAAAATGGCTTTAACAAAGAACGTAAGAAAAATGATTTAATCCTAAGAAAG
 CCGTAGAGGACTCTGAGTACGATTCAGGTTCTGATGCTGGGAGCTCACTGGATGAGGACTATAGCAGTTG
 TGAAGAAGTGATGGAGGACGGCTATAAAGGCAAAATTCCTATTTCCTTCAAGTTTCTTCAATTGCTGAA
 CTGACTTTGATTCTAAGTGTTCTCAGAAAAAGGCTCAGAAAATAACAGAACTCCGGCCCTTAATAATT
 GGAAGCTCTGTTTACAAGATGTCTAAAATCAATGGCCTATCTGAAGATTTGATATGGAATTGCAAAAC
 GGTAATTAAGAAAGGGACGTAGTTATAAGACTTATGAACAAATGTGAGGACATTTCAAATAAACTGACC
 AAACAAGTACGATGCTCACCAGGAAATGGAGGCGGATGGAACAGAGAACAGCCCTCCCTTCTAAACAAA
 GTTTGTCACTCAAGCCCTATCAGAAGGTTGGGTTGAACTGGTGGCGTTGGTGCATAAGCATGGACTTAA
 TGGCATTCTGGCAGACGAAATGGGCCTAGGAAAAACCATCAAGCCATTGCATTCCTGGCATACTCTTT
 CAAGAGGTAATAAAGGGCCCTATTTGATTGTTGTTCCAGCCTCCACCATAGATAACTGGTTAAGAGAAG
 TTAACTTATGGTGCCCCAGTTTAAATGTGCTCTGTTACTATGGTTCTCAAGAAGAGCGTAAGCAAATTAG
 ATTCAACATCCATAATAAGTATGAGGATTACAATGTAATTGTTACAACGATAAATTGTGCAATCAGCAGC
 TCTGATGACCGCAGTCTCTTTCGACGACTGAAACTGAATTATGCAATTTTGGATGAAGGCCATATGCTGA
 AGAATATGGGCTCTATCCGCTATCAACATCTAATGACAATTAATGCACGTAACCGTTTATTGCTCACAGG
 CACACCTGTGCAGAATAATCTGTAGAACTCATGTGATTGTTGAATTTTGTATGCCACACATGTTTAGC
 AGTAGCACCAGTGAATCCGAAGGATGTTTTCTTAAAACGAAACCAGCAGACGAGCAGAGTATATACG
 AAAAGGAGAGAATAGCCACGCGAAGCAAATCATAAGCCCTTCATCCTCAGGAGAGTGAAGGAGGAGGT
 TCTTAAGCTCCTGCCCTCCAAGAAGGATCGGATTGAGCTATGTGCGATGTCAGAGAAGCAGGAGCAGCTC
 TACTCGGGCTCTTCAACAGATTGAAAAAGTCTATCAACAACCTGGAAAAAACACAGAGATGTGCAATG
 TCATGATGCAATTGAGAAAAATGGCCAATCACCTTTACTACACCGCCAGTATTACACACCTGAGAACT
 GAAGGAGATGTCTCAGCTAATGTGAAGGAACCTACGCACTGTGAGGCCAACCTGACCTGATCTTTGAA
 GACATGGAAGTTATGACAGATTTTGAACACTCATGTACTTTGTAACAGATCAACACATTAATAGTTACC
 AGTTAGACATGGATTTAATTTTAGATTCTGGGAAATCCGAGCCTTAGGATGCATCTTGTCTGAGTTGAA
 ACAGAAGGGTGATAGAGTTGATATTTCAGCCAGTTTACCATGATGCTGGATATACTAGAGGTTCTCTTA
 AAGCATCATCAACATAGGTACCTCCGATTAGATGGAAAGACTCAGATTTCTGAAAGGATTCATCTAATTG
 ATGAGTTTAATACAGATATGGATATCTTTGATTTCTCTTGTCAACTAAAGCTGGTGGACTAGGAATAAA
 TCTTACTTCAGCAAATGTTGTTAATCTCAGCATTGATTGCAATCCATACAATGACAAACAAGCAGAA
 GACAGGTGCCATAGAGTTGGTCAGACTAAAGAAGTATTAGTTATTAATTAATAAGCCAAGGAACCTATTG
 AAGAGTCCATGCTAAAAATTAACCAACAAAAGTTGAAACTAGAGCAAGACATGACCACAGTATAGTGAAGC
 TGATGAAGGAAGTATGCCAGCAGATATAGCCACATTACTAAAAACATCAATGGGCCTGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: BC042442
 Insert Size: 2511 bp

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| 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: | <ol style="list-style-type: none">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: | BC042442 , AAH42442 |
| RefSeq Size: | 4193 bp |
| RefSeq ORF: | 2510 bp |
| Locus ID: | 13990 |
| Cytogenetics: | 6 30.11 cM |
| Gene Summary: | DNA helicase that possesses intrinsic ATP-dependent nucleosome-remodeling activity and is both required for DNA repair and heterochromatin organization. Promotes DNA end resection of double-strand breaks (DSBs) following DNA damage: probably acts by weakening histone DNA interactions in nucleosomes flanking DSBs. Required for the restoration of heterochromatin organization after replication. Acts at replication sites to facilitate the maintenance of heterochromatin by directing H3 and H4 histones deacetylation, H3 'Lys-9' trimethylation (H3K9me3) and restoration of silencing (By similarity).[UniProtKB/Swiss-Prot Function] |