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 MC206493

Samhd1 (BC012721) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Samhd1 (BC012721) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Samhd1
Synonyms:	E330031J07Rik; Mg11
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>BC012721
CCACGCGTCCGCTGCGCGCGAGCCGGTGCCGCGGTACTTAACTTCGCAGCCCCGGGTGTCGGAGGTAGCC
ATGCAGAGCGCACCCTTGGAGCAGCCAGCTAAGCGACCCCGCTGCGATGGCAGCCCAAGGACGCCACCGA
GCACTCCTCCTGCAACAGCTAATCTGTCTGCAGACGACGACTTCCAAAACACCGACCTCCGAACCTGGGA
ACCGGAGGACGTGTGCTCCTTCTTAGAGAATCGTGGTTTCCGAGAGAAGAAAGTGCTGGACATCTTCAGA
GACAATAAAATCGCCGGCTCGTTTCTGCCCTTTTTGGATGAGGATCGTCTGGAAGATCTGGGAGTAAGTT
CCTTGGAGGAGAGGAAGAAGATGATAGAATGTATCCAGCAGCTGAGTCAGTCTCGGATTGATCTAATGAA
GGTATTTAATGATCCCATTCATGGCCACATTGAGTTCCACCCTCTCCTTATCAGAATCATCGACACACCT
CAGTTCCAGCGACTTCGCTATATCAAGCAGCTGGGGGGCGGCTACTATGTTTTCCCTGGAGCGTCCCACA
ATCGCTTCGAACACAGTCTCGGAGTGGGGTACCTAGCAGGCTGCCTGGTGCGAGCACTTGCCGAAAAACA
GCCAGAGCTACAGATCAGTGAGCGAGATATACTCTGTGTTCAGATTGCGGGGCTCTGCCACGACCTAGGT
CATGGGCCATTTTCTCATATGTTTGATGGAAGGTTTATCCCACGGGCTCGCCCAGAGAAAAAGTGGAAGC
ACGAACAGGGCTCCATTGAGATGTTTGAGCATCTGGTCAATTCTAATGAACTCAAACTTGTCATGAAGAA
CTATGGTCTCGTCCCTGAAGAAGACATTACCTTTATCAAGGAACAAATTATGGGACCACCTATAACACCA
GTCAAAGATTCCTTGTGGCCGTATAAAGGCCGCCCTGCCACGAAGAGCTTCCTTTACGAGATAGTGTCTA
ACAAGAGGAATGGCATCGACGTAGACAAATGGGATTATTTTGCCAGAGACTGTCACCATCTTGGAATCCA
AAATAATTTTGATTACAAGCGCTTCATTAAGTTTGCCCGTATCTGTGAAGTGGAGTACAAGGTCAAGGAG
GACAAGACCTACATCCGTAAGGTGAAGCACATTTGTTCGAGAGAAAAGGAGGTTGGAAATCTGTATGACA
TGTTCCACACTCGCAACTGCTTACACCGAAGAGCTTACCAACACAAGATCAGCAACCTCATCGACATAAT
GATTACAGATGCCTTCCTCAAAGCAGACCCCTACGTGGAGATTACAGGGACTGCCGGGAAGAAGTTCCGC
ATTTCCACAGCCATTGATGACATGGAAGCCTTCACTAAGTTGACGGATAACATTTTTCTGGAGGTTTTAC
ACTCTACTGATCCACAGTTGTCTGAGGCCCAAAGTATTTTAAGGAACATTGAATGCCGCAATCTATACAA
GTATTTGGGTGAGACCCAGCCAAAGCGTGAGAAGATTAGGAAGGAAGAATATGAACGGCTTCCCCAAGAA
GTTGCTAAAGCCAAACCTGAAAAAGCCCCGGATGTTGAACTGAAGGCCGAAGATTTCATAGTTGATGTTA
TCAATGTGGATTATGGGATGGAAGACAAGAATCCAATCGATCGTGTTCACTTCTATTGTAAGAGCAACAG
CAAGCAAGCGGTCAGGATCAATAAAGAGCAGGTGTCACAACTGCTGCCAGAGAAATTTGCAGAGCAGCTC
ATTCGGGTGTACTGTAAGAAGAAAGACGGGAAGAGCCTGGACGCCGCCGGGAAGCACTTTGTTCAGTGGT
GTGCGCTCAGGGACTTCACCAAGCCACAGGATGGTGACATTATAGCTCCACTCATAACACCTCTGAAATG
GAATAATAAGACTTCATCTTGCCTCCAAGAAGTATCCAAAGTAAAAACATGTCTAAAATTTTAAAAAAAA AAAAAAA

Restriction Sites: EcoRI-NotI

ACCN: BC012721

Insert Size: 1884 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:	BC012721, AAH12721
RefSeq Size:	1967 bp
RefSeq ORF:	1884 bp
Locus ID:	56045
Cytogenetics:	2 H1
Gene Summary:	Isoform 1: Protein that acts both as a host restriction factor involved in defense response to virus and as a regulator of DNA end resection at stalled replication forks (By similarity). Has deoxynucleoside triphosphate (dNTPase) activity, which is required to restrict infection by viruses: dNTPase activity reduces cellular dNTP levels to levels too low for retroviral reverse transcription to occur, blocking early-stage virus replication in dendritic and other myeloid cells (PubMed:23972988, PubMed:23872947, PubMed:26667483, PubMed:29379009). Likewise, suppresses LINE-1 retrotransposon activity (PubMed:26667483). In addition to virus restriction, dNTPase activity acts as a regulator of DNA precursor pools by regulating dNTP pools (By similarity). Phosphorylation at Thr-634 acts as a switch to control dNTPase-dependent and -independent functions: it inhibits dNTPase activity and ability to restrict infection by viruses, while it promotes DNA end resection at stalled replication forks (By similarity). Functions during S phase at stalled DNA replication forks to promote the resection of gapped or reversed forks: acts by stimulating the exonuclease activity of MRE11, activating the ATR-CHK1 pathway and allowing the forks to restart replication (By similarity). Its ability to promote degradation of nascent DNA at stalled replication forks is required to prevent induction of type I interferons, thereby preventing chronic inflammation (By similarity). Ability to promote DNA end resection at stalled replication forks is independent of dNTPase activity (By similarity). Enhances immunoglobulin hypermutation in B-lymphocytes by promoting transversion mutation (PubMed:29669924).[UniProtKB/Swiss-Prot Function]