

## Product datasheet for MR205710

### Adprhl2 (NM\_133883) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Adprhl2 (NM_133883) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Adprhl2
Synonyms:	AI836109; Arh3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205710 representing NM_133883 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGTGGCTGCGCGGCAGCAGCTACAGCGATGTCGGCGCGGGGGCGCGGGGCAAGTGC GGCC  
GCTCCATCTCGCGCTTCCGAGGTTGCCTGGCGGGCGCGTGTGGGAGATTGCGTGGCGCTGTCTACGA  
GGCACACGATACCGTCAGCCTGGCATCAGTCTGAGTACGTCGAGAGCCTGGAGCCGACCCGGGCAGC  
CCGGGCAGCGCGGACAGAGACTGTACTACACAGATGACTGCCATGACCAGGCCCTGGTGCAGT  
CCCTGCTGGCCAAGGAGCCTTCGACGAGTGGACATGGCTCACAGGTTTGGCCAGGAACAAGAAGGA  
CCCTGACAGAGGGTATGGGGCCGAGTCATCACTGCTTCAAGAACTCCTGAATCCAAGTGCCGTGAT  
GTCTATGAGCCTGCCCGGCCAGTTCAACGGGAAGGTTCTATGGCAATGGGGTGCCATGCGGGTAG  
CAGGCATCTCGCTGGCCTATAGCAGTGTCCAAGATGTACAGAAGTTTGGCCGGCTCTCGGCCAGCTGAC  
CCACGCCCTTCCCTGGGCTATAACGGTGCCATCTTGACGGCCCTGGCTGTGCACCTTGCTGCAGGGT  
GTATCATCCAGTGAGCACTTCTTGAGCAGTCTGGGCCACATGGAGGAGCTGGAAGGTGATGCCAAT  
CGGTCTTGACGCCAAGGAGTTGGGTATGGAGGAGCGTCCGACTCCAGCAGGCTGAAGAAGGTGCGAGA  
GCTGCTGGACCAGGACGTGGTGAGCCGAGAGGAAGTGGTCCGAGCTAGGGAATGGCATTGCCGCTTT  
GAATCTGTGCCACCGCCATCTACTGCTTCTGCGCTGCATGGAGCCTCACCTGAGATCCCCTCCACCT  
TCAACAGTCTCCAGAGGACTCTCATCTACTCCATCTCACTTGGTGGGGACACAGACCATAGCCACCAT  
GGCTGGGGCCATTGCTGGAGCTTACTATGGGATGGAACAGGTGCCGGAGAGCTGGCAGAAAGTTGTGAA  
GGCTTTGAGGAGACAGACGTCCTGGCCAGAGCCTGCACCGAGTCTTCCAGGAGAGCTCG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205710 representing NM\_133883  
Red=Cloning site Green=Tags(s)

MAVAAAAAATAMSAAGGGGASAARSISRFRGCLAGALLGDCVGAVYEAHDTVSLASVLSHVESLEPDPGT  
 PGSARTETLYTDDTAMTRALVQSLLAKEAFDEVDMARHFAQEYKDPDRGYGAGVITVFKLLNPKCRD  
 VYEPARAQFNGKGSYNGGAMRVAGISLAYSSVQDVQKFARLSAQLTHASSLGYNGAILQALAVHLALQG  
 VSSSEHFLEQLLGHMEELEGDAQSVLDAKELGMEERPYSRLKKVGEELLDQDVVSREEVVSSELNGGIAAF  
 ESVPTAIYCFRLCMEPHPEIPSTFNSLQRTLIIYSISLGGDDTIATMAGAIAGAYYGMEQVPEWSQQSCE  
 GFEETDVLAAQSLHRVFAQESS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_133883

**ORF Size:** 1110 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\\_133883.2](#), [NP\\_598644.1](#)

**RefSeq Size:** 1368 bp

**RefSeq ORF:** 1113 bp

**Locus ID:** 100206

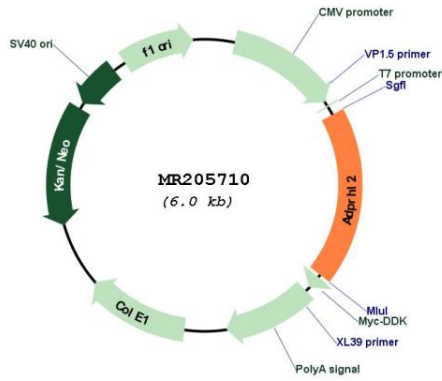
**UniProt ID:** [Q8CG72](#)

**Cytogenetics:** 4 D2.2

**MW:** 39.9 kDa

**Gene Summary:** ADP-ribose glycohydrolase that preferentially hydrolyzes the scissile alpha-O-linkage attached to the anomeric C1" position of ADP-ribose and acts on different substrates, such as proteins ADP-ribosylated on serine, free poly(ADP-ribose) and O-acetyl-ADP-D-ribose (By similarity). Specifically acts as a serine mono-ADP-ribosylhydrolase by mediating the removal of mono-ADP-ribose attached to serine residues on proteins, thereby playing a key role in DNA damage response (By similarity). Serine ADP-ribosylation of proteins constitutes the primary form of ADP-ribosylation of proteins in response to DNA damage (By similarity). Does not hydrolyze ADP-ribosyl-arginine, -cysteine, -diphthamide, or -asparagine bonds (By similarity). Also able to degrade protein free poly(ADP-ribose), which is synthesized in response to DNA damage: free poly(ADP-ribose) acts as a potent cell death signal and its degradation by ADPRHL2 protects cells from poly(ADP-ribose)-dependent cell death, a process named parthanatos (PubMed:24191052). Also hydrolyzes free poly(ADP-ribose) in mitochondria (By similarity). Specifically digests O-acetyl-ADP-D-ribose, a product of deacetylation reactions catalyzed by sirtuins (By similarity). Specifically degrades 1"-O-acetyl-ADP-D-ribose isomer, rather than 2"-O-acetyl-ADP-D-ribose or 3"-O-acetyl-ADP-D-ribose isomers (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205710