

Histone-lysine N-methyltransferase ATXR5 (ATXR5), Recombinant Protein

Cat RP04621

Size 0.02 mg (E-Coli)/ 0.02 mg (Yeast)/ 0.1 mg (E-Coli)/ 0.1 mg (Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 0.1

mg (Baculovirus)/ 1 mg (E-Coli)/ 1 mg (Yeast)/ 0.1 mg (Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)
Species Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant Arabidopsis thaliana Histone-lysine N-methyltransferase ATXR5 (ATXR5)

Product Gene Name

ATXR5 recombinant protein

Product Synonym Gene Name

ATXR5

Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

Sequence

MATWNASSPA ASPCSSRRRT KAPARRPSSE SPPPRKMKSM AEIMAKSVPV VEQEEEEDED SYSNVTCEKC
GSGEGDDELL LCDKCDRGFH MKCLRPVVR VPIGTWLCVD CSDQRPVRKE TRKRRRSCSL TVKKRRRKLL
PLVPSDPDQ RLAQMGTLAS ALTALGIKYS DGLNYVPGMA PRSANQSKLE KGGMQVLCKE DLETLEQCQS
MYRRGECPLP VVVFDPLEGY TVEADGPIKD LTFIAEYTG DYLKNREKD DCDSIMTLLL SEDPSKTLVI
CPDKFGNISR FINGINNHNP VAKKKQNCKC VRYSINGECR VLLVATRDIS KGERLYYDYN GYEHEYPTHH FL

Sequence Positions

1-352, Full length protein

Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

39,717 Da

Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week. Repeated freezing and thawing is not recommended.

Protein Family

Histone-lysine N-methyltransferase

NCBI Accession

NP_001078559.1

NCBI GI

145334355

NCBI GenBank Nucleotide

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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mg (Baculovirus)/ 1 mg (E-Coli)/ 1 mg (Yeast)/ 0.1 mg
(Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-
Cell)
NCBI GeneID
830839

NCBI Official Full Name

TRITHORAX-RELATED PROTEIN 5

NCBI Official Symbol

ATXR5

NCBI Official Synonym Symbols

ARABIDOPSIS TRITHORAX-RELATED PROTEIN 5; F17I14.20; F17I14_20; PDE336; PIGMENT DEFECTIVE
336; SDG15; SETDOMAIN GROUP 15

NCBI Protein Information

TRITHORAX-RELATED PROTEIN 5

NCBI Summary

Encodes a SET-domain protein, a H3K27 monomethyltransferases required for chromatin structure and gene silencing. Regulates heterochromatic DNA replication. Contains a PCNA-binding domain. ATXR5 accumulates preferentially during the late G1 or S phase, suggesting that it plays a role in cell-cycle regulation or progression. A plant line expressing an RNAi construct directed against this gene has reduced agrobacterium-mediated tumor formation.

UniProt Gene Name

ATXR5

UniProt Synonym Gene Names

SDG15; SET15; TRX-related protein 5

UniProt Protein Name

Histone-lysine N-methyltransferase ATXR5

UniProt Synonym Protein Names

Protein SET DOMAIN GROUP 15; Trithorax-related protein 5; TRX-related protein 5

UniProt Primary Accession

Q8VZJ1

UniProt Secondary Accession

Q1AJM5; Q9FXW6; Q9LXE2; F4KFB9

UniProt Related Accession

Q8VZJ1

UniProt Comments

Histone methyltransferase that specifically monomethylates 'Lys-37' of histone H3 (H3K27me1). Has much higher activity on nucleosomes containing H3.1 than H3.3. Involved in the formation of constitutive heterochromatin and the silencing of heterochromatic elements. Influences which sets of rRNA gene variants are expressed or

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(Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 0.1

silenced. mg (Baculovirus)/ 1 mg (E-Coli)/ 1 mg (Yeast)/ 0.1 mg
(Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-
Cell)

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