

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



CD BioSciences

Plant 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

**Species** mg (Baculovirus)/ 1 mg (E-Coli)/ 1 mg (Yeast)/ 0.1 mg (Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)  
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 VEQEEEEEDED SYSNVTCEKC  
GSGEGDDELL LCDKCDRGFH MKCLRPIVVR VPIGTWLCSV CSDQRPVKE TRKRRRSCSL TVKKRRRKLL  
PLVPSEDPDQ RLAQMGTLAS ALTALGIKYS DGLNYVPGMA PRSANQSKLE KGGMQVLCKE DLETLEQCQS  
MYRRGECPPV VVVFDPLEGY TVEADGPIKD LTFIAEYTGD VDYLKNREKD DCDSIMTLL 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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**NCBI GenID** NM\_001085090.2  
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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**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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