

ATPase 1, plasma membrane-type (AHA1), Recombinant Protein

Cat *RP01000*

Size 1 mg (*E-Coli*)/ 1 mg (*Yeast*)

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant *Arabidopsis thaliana* ATPase 1, plasma membrane-type (AHA1) , partial

Product Gene Name

AHA1 recombinant protein

Purity

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

Sequence

SGLEDIKNET VDLEKIPIEE VFQQLKCTRE GLTTQEGEDR IVIFGPNKLE EKESKILKF LGFMWNPLSW
VMEAAALMAI ALANGDNRPP DWQDFVGIIC LLVINSTISF IEENNAGNAA AALMAGLAPK TKVLRDGKWS
EQEAAILVPG DIVSIKLDI IPADARLLEG DPLKVDQSAL TGESLPVTKH PGQEVFSGST CKQGEIEAVV
IATGVHTFFG KAAHLVDSTN QVGHFQKVLTSIGNFCICSI AIGIAIEIVV MYPIQHRKYR DGIDNLLVLL
IGGIPIAMPT VLSVTMAIGS HRLSQQGAIT KRMTAIEEMA GMDVLCSDKT GTLTLNKLVS DKNLVEVFCK
GVEKDQVLLF AAMASRVENQ DAIDAMVGM LADPKEARAG IREVFHLPFN PVDKRTALTY IDSDGNWHRV
SKGAPEQILD LANARPDRLK KVLSCIDKYA ERGLRSLAVA RQVVPEKTK SPGGPWEFVG LLPLFDPPRH
DSAETIRRAL NLGVNVKMIT GDQLAIGKET GRRLGMGTNM YPSAALLGTD KDSNIASIPV EELIEKADGF
AGVFPEHKYE IVKKLQERKH IVGMTGDGVN DAPALKKADI GIAVADATDA ARGASDIVLT EPGLSVIISA
VLTSRAIFQR MKNYTIYAVS ITIRIVFGFM LIALIWEFDF SAFMVLIIAI LNDGTIMTIS KDRVKPSPTP
DSWKLKEIFA TGIVLGGYQA IMSVIFFWAA HKTDFFSDKF GVSIRDND ELMGAVYLQV SIISQALIFV
TRSRWSFVE RPGALLMIAF VIAQLVATLI AVYADWTFK VKGIGWGWAG VIWIYSIVTY FPQDILKFAI
RYILSGKAWA SLFDNRTAFT TKKDYGIGER EAQWAQAQRT LHGLQPKEDV NIFPEKGSYR ELSEIAEQAK
RRAEIARLRE LHTLKGHVES VAKLKGLDID TAGHHYTV

Sequence Positions

2-949

Format

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

Host

E Coli or *Yeast* or *Baculovirus* or *Mammalian Cell*

Molecular Weight

104,224 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

ATPase

NCBI Accession

NP_179486.1

NCBI GI

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

ATPase 1, plasma membrane-type (AHA1), Recombinant Protein

Cat *RP01000*

Size 1 mg (*E-Coli*)/ 1 mg (*Yeast*)

15224264

NCBI GenBank Nucleotide

NM_127453.4

NCBI GeneID

816413

NCBI Official Full Name

H⁺-ATPase 1

NCBI Official Symbol

HA1

NCBI Official Synonym Symbols

AHA1; F19F24.16; F19F24_16; H⁺-ATPase 1; OPEN STOMATA 2; OST2; PLASMA MEMBRANE PROTON ATPASE; PMA

NCBI Protein Information

H⁺-ATPase 1

NCBI Summary

Encodes a plasma membrane proton ATPase. Mutants have a reduced ability to close their stomata in response to drought and are affected in stomatal but not seed responsiveness to ABA.

UniProt Gene Name

AHA1

UniProt Protein Name

ATPase 1, plasma membrane-type

UniProt Synonym Protein Names

Proton pump 1

UniProt Primary Accession

P20649

UniProt Secondary Accession

O64626

UniProt Related Accession

P20649

UniProt Comments

The plasma membrane H⁺ ATPase of plants and fungi generates a proton gradient that drives the active transport of nutrients by H⁺-symport. The resulting external acidification and/or internal alkalinization may mediate growth responses. Forms a functional cation-translocating unit with CNGC17 that is activated by PSKR1/BAK1 and possibly other BAK1/RLK complexes (PubMed:26071421).

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