

Auxin transport protein BIG (BIG), Recombinant Protein

Cat *RP00418*

Species

Arabidopsis thaliana (Mouse-ear cress)

Full Product Name

Recombinant *Arabidopsis thaliana* Auxin transport protein BIG (BIG) , partial

Product Gene Name

BIG recombinant protein

Product Synonym Gene Name

BIG

Purity

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

Format

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

Host

E Coli or Yeast or Baculovirus or Mammalian Cell

Molecular Weight

567,888 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.

NCBI Accession

NP_186875.2

NCBI GI

30678519

NCBI GenBank Nucleotide

NM_111093.2

NCBI GeneID

820398

NCBI Official Full Name

auxin transport protein (BIG)

NCBI Official Symbol

BIG

NCBI Official Synonym Symbols

ASA1; ATTENUATED SHADE AVOIDANCE 1; CORYMBOSA1; CRM1; DARK OVER-EXPRESSION OF CAB 1; DOC1; F14P3.3; F14P3_3; LOW PHOSPHATE-RESISTANT ROOT 1; LPR1; TIR3; TRANSPORT INHIBITOR RESPONSE 3; UMB1; UMBRELLA 1

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

Auxin transport protein BIG (BIG), Recombinant Protein

Cat *RP00418*

NCBI Protein Information

auxin transport protein (BIG)

NCBI Summary

Calossin-like protein required for polar auxin transport

UniProt Gene Name

BIG

UniProt Synonym Gene Names

ASA1; CRM1; DOC1; GA6; LPR1; TIR3; UMB1

UniProt Protein Name

Auxin transport protein BIG

UniProt Synonym Protein Names

Protein ATTENUATED SHADE AVOIDANCE 1; Protein CORYMBOSA1; Protein DARK OVER-EXPRESSION OF CAB 1; Protein LOW PHOSPHATE-RESISTANT ROOT 1; Protein TRANSPORT INHIBITOR RESPONSE 3; Protein UMBRELLA 1

UniProt Primary Accession

Q9SRU2

UniProt Secondary Accession

F4J4S0

UniProt Related Accession

Q9SRU2

UniProt Comments

Required for auxin efflux and polar auxin transport (PAT) influencing auxin-mediated developmental responses (e.g. cell elongation, apical dominance, lateral root production, inflorescence architecture, general growth and development). Controls the elongation of the pedicels and stem internodes through auxin action. Involved in the expression modulation of light-regulated genes. Represses CAB1 and CAB3 genes expression in etiolated seedlings. Confers sensitivity to the auxin transport inhibitors N-1-naphthylphthalamic acid (NPA), 2-carboxyphenyl-3-phenylpropane-1,2-dione (CPD), and methyl-2-chloro-9-hydroxyfluorene-9-carboxylate (CFM). Influences the polarized subcellular distribution of the auxin transporter PIN1 in response to auxin transport inhibitors. Plays a role in the regulation of responses to phytohormones such as auxin, cytokinins, ethylene and gibberellic acid (GA), particularly during light-mediated stimuli (e.g. shade avoidance, etiolation). Required for pericycle cell activation to form lateral root primordia (LRP) in both high and low phosphate P conditions. Necessary for the plant-growth promotion and lateral root development mediated by the fungus *Trichoderma virens*.

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