

Protein SOMBRERO (SMB), Recombinant Protein

Cat RP00273

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 Protein SOMBRERO (SMB)

Product Gene Name

SMB recombinant protein

Product Synonym Gene Name

SMB

Purity

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

Sequence

MEIGSSSTVA GGGQLSVPPG FRFHPTEEL LYYYLKKKVS YEPIDLDVIR EVDLNKLEPW ELKEKCRIGS
GPQNEWYFFS HKDKKYPTGT RTNRATAAGF WKATGRDKSI HLNSSKKIGL RKTLVFYTG RAPHGQKTEWI
MHEYRLDDSE NEIQEDGWVV CRVFKKKNH F RGFHQEQEQD HHHHHQYIST NNDHDHHHHI DSNSNNHSPL
ILHPLDHHHH HHHIGRQIHM PLHEFANTLS HGSMHLPQLF SPDSAAAAAA AAASAQPFVS PINTTDIECS
QNLLRLTSNN NYGGDWSFLD KLLTTGNMNQ QQQQVQNHQ AKCFGDLSNN DNNDQADHLG
NNNGGSSSSP VNQRFPFHYL GNDANLLKFP K

Sequence Positions

1-371, 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

42,382 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

Protein SOMBRERO

NCBI Accession

NP_001319416.1

NCBI GI

1063693495

NCBI GenBank Nucleotide

NM_001334893.1

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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(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)

NCBI GeneID

844296

NCBI Official Full Name

NAC (No Apical Meristem) domain transcriptional regulator superfamily protein

NCBI Official Symbol

SMB

NCBI Official Synonym Symbols

ANAC033; Arabidopsis NAC domain containing protein 33; F20B17.1; F20B17_1; SOMBRERO; UAS-TAGGED
ROOT PATTERNING7; URP7

NCBI Protein Information

NAC (No Apical Meristem) domain transcriptional regulator superfamily protein

NCBI Summary

NAC-domain protein. Involved in root cap development. Involved in a regulatory feedback loop with FEZ. FEZ activates SMB in the root cap daughter cells soon after division, and SMB in turn represses FEZ expression in these cells, thereby preventing further stem cell divisions.

UniProt Gene Name

SMB

UniProt Synonym Gene Names

NAC033; ANAC033

UniProt Protein Name

Protein SOMBRERO

UniProt Synonym Protein Names

NAC domain-containing protein 33; ANAC033

UniProt Primary Accession

Q9MA17

UniProt Related Accession

Q9MA17

UniProt Comments

Transcription regulator. Together with BRN1 and BRN2, regulates cellular maturation of root cap. Represses stem cell-like divisions in the root cap daughter cells, and thus promotes daughter cell fate. Inhibits expression of its positive regulator FEZ in a feedback loop for controlled switches in cell division plane. Promotes the expression of genes involved in secondary cell walls (SCW) biosynthesis.

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY