

# 1,4-alpha-glucan-branching enzyme 3, chloroplastic/amyloplastic (SBE3), Recombinant Protein

Cat      *RP01823*

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## Species

*Arabidopsis thaliana* (Mouse-ear cress)

## Full Product Name

Recombinant *Arabidopsis thaliana* 1,4-alpha-glucan-branching enzyme 3, chloroplastic/amyloplastic (SBE3) , partial

## Product Gene Name

SBE3 recombinant protein

## 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

103,219 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

1,4-alpha-glucan branching enzyme

## NCBI Accession #

NP\_001154629.1

## NCBI GI #

238479829

## NCBI GenBank Nucleotide #

NM\_001161157.2

## NCBI GeneID

821589

## NCBI Official Full Name

Alpha amylase family protein

## NCBI Official Symbol

EMB2729

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**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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# 1,4-alpha-glucan-branching enzyme 3, chloroplastic/amyloplastic (SBE3), Recombinant Protein

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## NCBI Official Synonym Symbols

BE1; BRANCHING ENZYME 1; EMBRYO DEFECTIVE 2729

## NCBI Protein Information

Alpha amylase family protein

## NCBI Summary

Encodes BE1, a putative glycoside hydrolase. Involved in organogenesis and somatic embryogenesis by regulating carbohydrate metabolism. Mutation in BE1 has pleiotrophic effect on the whole plant development.

## UniProt Gene Name

SBE3

## UniProt Synonym Gene Names

BE1; EMB2729; AtSBE III; AtBE1

## UniProt Protein Name

1,4-alpha-glucan-branching enzyme 3, chloroplastic/amyloplastic

## UniProt Synonym Protein Names

Branching enzyme 1; AtBE1; Protein EMBRYO DEFECTIVE 2729; Starch-branching enzyme 3

## UniProt Primary Accession #

D2WL32

## UniProt Secondary Accession #

Q8GWK4; Q9LTP8; F4JEP1

## UniProt Related Accession #

D2WL32

## UniProt Comments

Catalyzes the formation of the alpha-1,6-glucosidic linkages in starch by scission of a 1,4-alpha-linked oligosaccharide from growing alpha-1,4-glucan chains and the subsequent attachment of the oligosaccharide to the alpha-1,6 position. Essential during embryogenesis.

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