

## Recombinant Arabidopsis Thaliana SPS1 Protein (768-995 aa), His-SUMO-tagged

Cat. No. SPS1-1875A    Lot. No. (See product label)

### SPECIFICATION

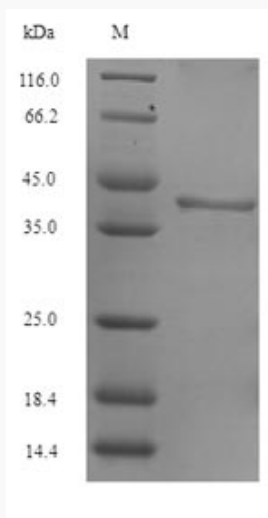
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Product Overview</b> | Recombinant Arabidopsis Thaliana (Mouse-ear cress) SPS1 Protein (768-995 aa) is produced by E. coli expression system. This protein is fused with a 6xHis-SUMO tag at the N-terminal. Research Area: Signal Transduction. Protein Description: Partial.                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Arabidopsis Thaliana                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ProteinLength</b>    | 768-995 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | Plays a major role in photosynthetic sucrose synthesis by catalyzing the rate-limiting step of sucrose biosynthesis from UDP-glucose and fructose- 6-phosphate. Involved in the regulation of carbon partitioning in the leaves of plants. May regulate the synthesis of sucrose and therefore play a major role as a limiting factor in the export of photoassimilates out of the leaf. Plays a role for sucrose availability that is essential for plant growth and fiber elongation. Required for nectar secretion. |
| <b>Form</b>             | Tris-based buffer,50% glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Molecular Mass</b>   | 41.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>AA Sequence</b>      | VVIALDFDGEEDTLEATKRILDAVEKERAEGSVGFILSTSLTISEVQSFLVSGGLNPND<br>FDAFICNSGSDLHYTSLNNEGDGPFVVDFFYYHSHIEYRWGGEGRLRKTILRWASSLNEK<br>KADNDEQIVTLAEHLSTDYCYTFTVKKPAAVPPVRELKLLRIQALRCHVVYSQNGT                                                                                                                                                                                                                                                                                                                                |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                         |                                                                                                                                                                                                                                                                                                                     |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | RINVIPVLASRIQALRYLFVRWGIDMAKMAVFGESGDTDYEGLLGGLHKSVLK                                                                                                                                                                                                                                                               |
| <b>Purity</b>           | > 90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                    |
| <b>Notes</b>            | Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.                                                                                                                                                                                                        |
| <b>Storage</b>          | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade. |
| <b>Concentration</b>    | A hardcopy of COA with reconstitution instruction is sent along with the products.                                                                                                                                                                                                                                  |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b>         | SPS1; Sucrose-phosphate synthase 1F Short name: AtSPS1F Sucrose-phosphate synthase 5.1 Short name: AtSPS5.1 UDP-glucose-fructose-phosphate glucosyltransferase;                                                                                                                                                     |
| <b>UniProt ID</b>       | <a href="#">Q94BT0</a>                                                                                                                                                                                                                                                                                              |



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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