Data Sheet (Cat.No.TMPH-00085)

TargetMol

SIZ1 Protein, Arabidopsis thaliana, Recombinant (His)

General Information

Synonyms: SIZ1;E3 SUMO-protein transferase SIZ1;E3 SUMO-protein ligase SIZ1

Protein Construction: 1-171 aa

Species: Arabidopsis thaliana

Expression Host: E. coli

Accession: Q680Q4

Molecular Weight: 23.2 kDa (predicted)

AA Sequence: MDLEANCKEKLSYFRIKELKDVLTQLGLSKQGKKQELVDRILTLLSDEQAARLLSKKNTVAKEAVAKLVDDTYRKMQVSGASDLASKGQVSSDTSNLKVKGEPEDPFQPEIKVRCVCGNSLETDSMIQCEDPRCHVWQHVGCVILPDKPMDGNPPLPESFYCEICRLTRAD

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: > 85% as determined by SDS-PAGE.

Endotoxin: < 1.0 EU/μg of the protein as determined by the LAL method.

Formulation: If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

E3 SUMO protein ligase involved in regulation processes. Mediates SUMO/ attachment to PHR1, a MYB transcriptional activator controlling the phosphate deficiency responses. Functions as an upstream negative

regulator of salicylic acid (SA) accumulation and subsequent SA-mediated systemic acquired resistance (SAR) signaling. Probably not involved in jasmonic acid (JA)-mediated defense response. Participates in abiotic stress-induced sumoylation. Controls heat shock-induced SUMO1 and SUMO2 conjugation and facilitates basal thermotolerance. Involved in freezing tolerance by mediating sumoylation of ICE1, a transcription activator of the cold signaling regulator CBF3/DREB1A. Acts as positive regulator of drought stress tolerance. Acts as floral repressor that promotes FLC expression by repressing FLD activity through sumoylation. Acts as negative regulator of abscisic acid (ABA) signaling through ABI5 sumoylation. Mediates sumoylation of SCE1, GTE3 and GTE5. Functions as negative regulator of SnRK1 signaling through sumoylation of several components of the SnRK1 complex.

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