



Recombinant Arabidopsis thaliana Protein ROS1 (ROS1), partial

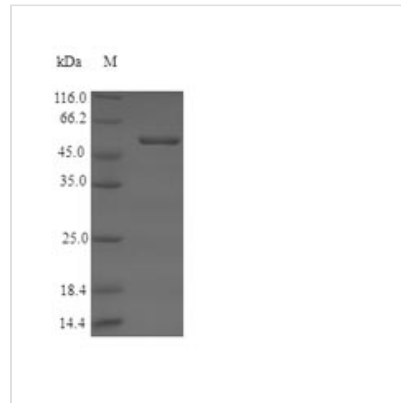
Product Code	CSB-EP874445DOA
Relevance	Bifunctional DNA glycosylase/lyase, which excises 5-methylcytosine (5-meC) and 5-hydroxymethylcytosine (5-hmeC), leaving an apyrimidinic (AP) site that is subsequently incised by the lyase activity (PubMed:25240767). Generates 3'-phosphor-alpha,beta-unsaturated aldehyde (3'-PUA) as a primary 5-meC excision intermediate (PubMed:25228464). Prevents DNA hypermethylation, specifically in the promoter of otherwise silenced loci. May be involved in DNA repair through its nicking activity on methylated DNA. Binds with similar affinity to both methylated and non-methylated DNA. Highly distributive behavior on DNA substrates containing multiple 5-meC residues. Involved with Pol IV in the remodeling of the 5S rDNA chromatin via DNA methylation modifications during the first days of development post-germination. Participates in UV-B induced- and oxidative DNA damage repair (PubMed:24155752).
Abbreviation	Recombinant Mouse-ear cress ROS1 protein, partial
Storage	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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9SJQ6
Alias	DEMETER-like protein 1 Repressor of silencing 1
Product Type	Recombinant Protein
Immunogen Species	Arabidopsis thaliana (Mouse-ear cress)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MEKQRREESSFQQPPWIPQTPMKPFSPICPYTVEDQYHSSQLEERRFVGNKD MSGLDHLISFGDLLALANTASLIFSGQTPIPTRNTEVMQKGTEEVESLSSVSNNV AEQILKTPEKPKRKKHRPKVRREAKPKREPKPRAPRKS SVTDGQESKTPKRKY VRKKVEVSKDQDATPVESAAVETSTRPKRLCRRVLDFAENGENTNGDIR EAGEMESALQEKQLDSGNQELKDCLLSAPSTPKRKR SQGKRKGVQPKKNGS NLEEVDISMAQAAKRRRQGPTCCDMNL SGIQYDEQCDYQKMHWLYSPNLQQG GMRYDAI
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	ROS1
Protein Names	Recommended name: Protein ROS1 EC= 3.2.2.- Alternative name(s): DEMETER-like protein 1 Repressor of silencing 1
Expression Region	1-320aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at



4°C for up to one week.

Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	52.3kDa
Protein Length	Partial

Image



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

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
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