



Recombinant African cassava mosaic virus

Replication-associated protein (AC1)

Product Code	CSB-EP324434ADX
Relevance	Essential for the replication of viral ssDNA. The closed circular ssDNA genome is first converted to a superhelical dsDNA. Rep binds a specific region at the genome origin of replication. It introduces an endonucleolytic nick within the conserved sequence 5'-TAATATTAC-3' in the intergenic region of the genome present in all giniviruses, thereby initiating the rolling circle replication (RCR). Following cleavage, binds covalently to the 5'-phosphate of DNA as a tyrosyl ester. The cleavage gives rise to a free 3'-OH that serves as a primer for the cellular DNA polymerase. The polymerase synthesizes the (+) strand DNA by rolling circle mechanism. After one round of replication, a Rep-catalyzed nucleotidyl transfer reaction releases a circular single-stranded virus genome, thereby terminating the replication. Displays origin-specific DNA cleavage, nucleotidyl transferase, ATPase and helicase activities .
Abbreviation	Recombinant African cassava mosaic virus AC1 protein
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.	P14982
Alias	40.4 kDa protein;Protein AC1;Protein AL1
Product Type	Recombinant Protein
Immunogen Species	African cassava mosaic virus (isolate West Kenyan 844) (ACMV) (Cassava latent virus (isolate West Kenyan 844))
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MRTPRFRIQAKNVFLTYPKCSIPKEHLLSFIQTLQSNPKFIKICRELHQNGEP HLHALIQFEGKITITNNRLFDCVHPSCSTSFHPNIQGAKSSSDVKSYLDKDGDT VEWGQFQIDGRSARGGQQSANDAYAKALNSGSKSEALNVIRELVPKDFVLQF HNLNSNLDRIFQEPPAPYVSPFPCSSFDQVPVEIEEWVADNVRDSAARPWRP NSIVIEGDSRTGKTIWARSLGPHNYLCGHLDLSPKVFENNAAWYNVIDDVPDHY LKHFKFEMGSQRDWQSNTKYGKPVQIKGGIPTIFLCNPGPTSSSYKEFLAEEKQ EALKAWALKNAIFITLTEPLYSGSNQSHSQTSEASHPA
Research Area	Others
Source	E.coli
Target Names	AC1
Expression Region	1-358aa
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 56.3kDa

Protein Length Full Length

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.

Shelf Life 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.