

Recombinant E. coli BirA protein (Active) ab135015

2 Images

Description	
Product name	Recombinant E. coli BirA protein (Active)
Biological activity	ab135015 (10 µg/ml) completely biotinylated 10 µM of substrate MBP-Avi at 30°C for 30 minutes in the standard reaction buffer containing 50 mM Bicine pH 8.3, 10 mM ATP, 10 mM MgOAc, and 50 µM d-Biotin.
Purity	>= 65 % SDS-PAGE. Affinity purified.
Expression system	Escherichia coli
Accession	P06709
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Escherichia coli
Sequence	MHHHHHHYKDDDDKLEVLFGGPKDNTVPLKLIALLANG E FHSGEQLG ETLGMSRAAINKHIQTLRDWGVDFVTPGKGY SLPEPIQLLNAEKILS QLDDGSVAVLPVIDSTNQYLLDRI GELKSGDACVAEYQHAGRGRRGRK WFSPFGANLYLSMFWR LEQGPAAAIGLSLVIGMMAEVLRLKLGADKVR VKWPNDLY LQDRKLAGILVELTGKTGDAAQVIGAGINMAMRRVEESV VNQGWITLQEAGINLDRNTLAAMLIRELRAALELFEQEGL TPYLSR WEKLDNFINRPVKLIIGDKEIFGISRGIDKQGAL LLEQDGIKPWMGG EISLRSAEK
Predicted molecular weight	38 kDa including tags
Amino acids	2 to 321
Tags	His-DDDDK tag N-Terminus
Additional sequence information	NP_418404 38 kDa including tags Additional notes: has several mutations plus the extra C terminal sequences compared with NP_418404
Description	Recombinant <i>E. coli</i> BirA protein (Active)
Specifications	

Our **Abpromise guarantee** covers the use of **ab135015** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Western blot
	Functional Studies
	SDS-PAGE
Form	Liquid
Additional notes	Useful for covalently biotin-labeling of acceptor proteins for detection and purification assays.

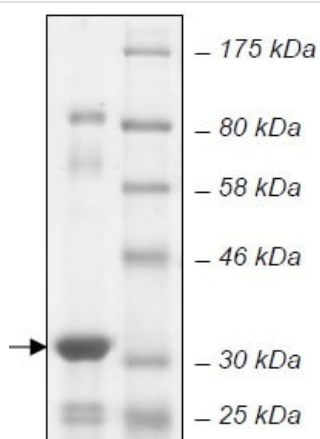
Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.
	pH: 8.00
	Preservative: 1.02% Imidazole
	Constituents: 0.05% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 0.79% Tris HCl, 5% Glycerol (glycerin, glycerine), 0.29% Sodium chloride
	This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Relevance	BirA acts both as a biotin-operon repressor and as the enzyme that synthesizes the corepressor, acetyl-CoA:carbon-dioxide ligase. This protein also activates biotin to form biotinyl-5'-adenylate and transfers the biotin moiety to biotin-accepting proteins.
------------------	--

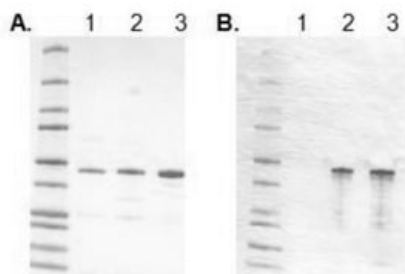
Images



10% SDS-PAGE analysis of ab135015 (4 µg) stained with Coomassie Blue.

SDS-PAGE - Recombinant *E. coli* BirA protein
(Active) (ab135015)

BirA Biotinylation Assay



Western blot - Recombinant *E. coli* BirA protein
(Active) (ab135015)

MBP-Avi biotinylation with His-FLAG-BirA using the standard reaction conditions as outlined in Enzyme Activity.

A. Coomassie blue stained gel showing protein markers:

1. Unbiotinylated MBP-Avi
2. His-FLAG-BirA / MBP-Avi
3. MBP-Avi-biotin control

B. The corresponding Western blot probed with Streptavidin-HRP and developed with DAB (3,3'-Diaminobenzidine) substrate.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors