

Data Sheet

BirA, His-FLAG-tag

Recombinant, N-terminal His-FLAG-tag

Catalog #: 70030

Lot#: 120301

Conc.: 0.39 mg/ml

Formulated in: 50 mM Tris-HCl, pH 8.0, 50 mM NaCl, 150 mM imidazole, 3 mM DTT, and 5% Glycerol.

Stability: At least 6 months at -80°C . Avoid freeze/thaw cycles.

References:

1. Li, Y., *et al.*, *Protein Expr Purif.* 2012 Mar; **82(1)**: 162-7.
2. Chakravarty, V., *et al.*, *J Bacteriol.* 2012 Mar; **194(5)**: 1113-26.

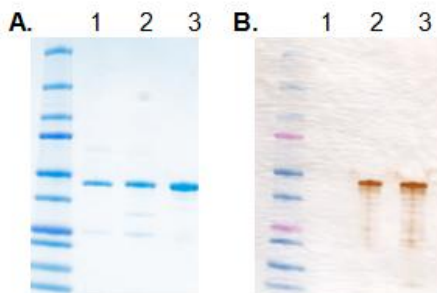
Description: Biotin ligase BirA, also known as Holocarboxylase Synthetase, Biotin Protein Ligase, and ATP-Hydrolysing Ligase, GenBank Accession No. NP_418404, a.a. 2–321 (end) with N-terminal His-FLAG tag, expressed in an *E. coli* cell expression system. MW = 37 kDa.

Assay Conditions: BirA (10 $\mu\text{g/ml}$) 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.

Application: Useful for covalently biotin-labeling of acceptor proteins for detection and purification assays.

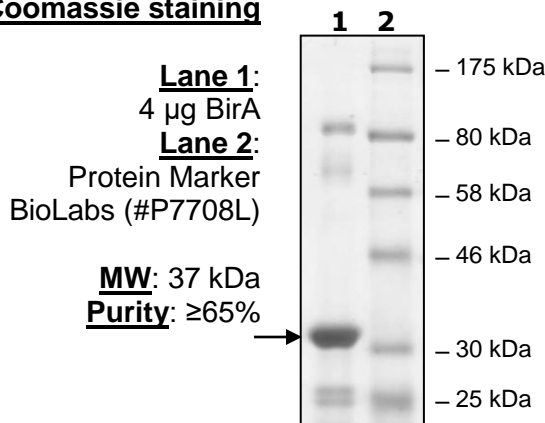
Quality Assurance

BirA Biotinylation Assay



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 (Biorad, #161-0374), (1) unbiotinylated MBP-Avi, (2) His-FLAG-BirA / MBP-Avi, and (3) MBP-Avi-biotin control. **B.** The corresponding Western blot probed with Streptavidin-HRP and developed with DAB (3,3'-Diaminobenzidine) substrate.

10% SDS-PAGE Coomassie staining



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