

Resource Summary Report

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Protein expression of hard-to-produce proteins in the cytoplasm of Escherichia coli

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Proper Citation

Cristina Hernandez Rollan, Kristoffer Bach Falkenberg, Maja Rennig, Andreas Birk Bertelsen, Morten Norholm 2020. Protein expression of hard-to-produce proteins in the cytoplasm of Escherichia coli. protocols.io dx.doi.org/10.17504/protocols.io.bfbwjipe

Protocol Information

URL: <https://dx.doi.org/10.17504/protocols.io.bfbwjipe>

Authors: Cristina Hernandez Rollan, Kristoffer Bach Falkenberg, Maja Rennig, Andreas Birk Bertelsen, Morten Norholm

Summary: This protocol describes the expression and extraction of heterologously cytoplasmically expressed proteins in the bacterium E.coli, for T7 based expression systems. Specifically, it describes how to produce "hard-to-produce", as for example, LPMOs. It is based on a modified version of: "IPTG Induction and Extraction of Proteins from Bacteria" by Swathi Arur and Sudhir Nayak, Schedl Lab. Washington University Genetics, St. Louis. Hemsworth, G. R., Henrissat, B., Davies, G. J., and Walton, P. H. (2014) Discovery and characterization of a new family of lytic polysaccharide monooxygenases. Nat. Chem. Biol. 10, 122–126. The extraction of cytoplasmatic proteins is followed by a chemical lysis protocol, alternatively, sonication can also be employed.

Affiliations: Technical University of Denmark, Technical University of Denmark, Technical University of Denmark, Technical University of Denmark, Technical University of Denmark

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