In vitro methylation of the elongation factor EF-Tu from Escherichia coli

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The in vitro methylation of the elongation factor EF-Tu from Escherichia coli was investigated. The methylation of newly synthesized EF-Tu was obtained using ?rifd18 DNA as template and S-adenosyl [methyl-3H]methionine as methyl donor. About 3 mol methyl residues were incorporated for every 10 mol EF-Tu synthesized. Analysis of the nature of the methyl-containing residues by protein hydrolysis followed by paper chromatography showed that both mono- and dimethyllysine were present. The methylation of EF-Tu was also studied separately from its synthesis by using cell-free systems with artificially undermethylated components. © 1985.