Recombinant Escherichia coli gyrB Protein (S2-T392), His-tagged

Cat. No. gyrB-1453E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Escherichia coli 6His-TEV-(G)-gyrB(S2-T392) (Y5S, N198D) protein with a His tag was expressed in E. coli
Species	E.coli
Source	E.coli
ProteinLength	S2-T392
Description	DNA gyrase negatively supercoils closed circular double-stranded DNA in an ATP-dependent manner to maintain chromosomes in an underwound state. This makes better substrates for topoisomerase 4 (ParC and ParE) which is the main enzyme that unlinks newly replicated chromosomes in E.coli. Gyrase catalyzes the interconversion of other topological isomers of double-stranded DNA rings, including catenanes. Relaxes negatively supercoiled DNA in an ATP-independent manner (E.coli gyrase has higher supercoiling activity than other characterized bacterial gyrases; at comparable concentrations E.coli gyrase introduces more supercoils faster than M.tuberculosis gyrase, while M.tuberculosis gyrase has higher decatenation than supercoiling activity compared to E.coli. E.coli makes 15% more negative supercoils in pBR322 plasmid DNA than S.typhimurium; the S.typhimurium GyrB subunit is toxic in E.coli, while the E.coli copy can be expressed in S.typhimurium even though the 2 subunits have 777/804 residues identical. The enzymatic differences between E.coli gyrase and topoisomerase IV are largely due to the GyrA C-terminal domain

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	(approximately residues 524-841) and specifically the GyrA-box.
Form	Liquid
Endotoxin	< 0.01 EU/μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	gyrB DNA gyrase subunit B [Escherichia coli str. K-12 substr. MG1655]
Official Symbol	gyrB
Synonyms	gyrB; DNA gyrase subunit B; acrB; Cou; ECK3691; himB; hisU; hopA; nalC; parA; pcbA; pcpA; DNA gyrase subunit B; EC 5.6.2.2
Gene ID	948211
Protein Refseq	YP_026241

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UniProt ID	P0AES6

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