

List of Abbreviations

(p)ppGpp⁰ - mutant deficient in production of (p)ppGpp.

3-AT – 3-amino 1, 2, 4- triazole

ADP - Adenosine Diphosphate

AMP - Adenosine Monophosphate

ATP - Adenosine Triphosphate

bp Base pair

CAM - chloramphenicol

DNA - Deoxyribonucleic acid

E σ^{70} - σ^{70} -programmed RNAP

EtBr - Ethidium Bromide

GDP - Guanosine diphosphate

GMP - Guanosine monophosphate

GTP - Guanosine tetraphosphate

HRP - horseradish peroxidase

kb - Kilobases

kDa - Kilo Dalton

LB - Luria Broth

MB - Minimal Broth

MIC - Minimal Inhibitory Concentration

mRNA - Messenger RNA

MW - Molecular Weight

NTP - Nucleoside triphosphates

OD - Optical Density

ORF - Open Reading Frame, coding sequence of a gene

ppGpp - Guanosine 3',5' - bispyrophosphate

pppGpp - Guanosine 3'-diphosphate 5'-triphosphate

RNA- Ribonucleic acid

RNAP - RNA polymerase ($\alpha 2\beta\beta'\omega$ -subunits)

rRNA- Ribosomal RNA

Rsh - RelA and SpoT homologues

SeOH - Serine hydroxamate

SMG - Serine, Methionine, Glycine

tRNA - Transfer RNA

λ H - lambda *HindIII* marker

λ HE - lambda *HindIII/EcoRI* marker

σ^{32} - Sigma H, the heat shock sigma factor

σ^{54} - Sigma N, the sigma factor controlling nitrogen

σ^{70} - Sigma 70, the housekeeping sigma factor

σ^s - Sigma S, the stationary phase sigma factor

σ^{24} - Sigma E, the minor factor

UTR – Untranslated region

cAMP - Cyclic Adenosine Monophosphate

CRP - cAMP Receptor Protein