

Escherichia coli

#!\$>"3%&\$(%3\$)"*?&

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<u>32%(45-5#1.#06)#5%&'()#-2#7*!89:\$#</u>#

!"#\$\\&'(")'"*"\\+,&-'.)/*0'123456!'(/78'78&'#&789-'\$:9;/-&-'")'#&*7/9*&-'/*'78&'7"<\\&'='"*-' -/)\$\\"+&-'1234'>8:9#"790:"#'")'-&\$/>7&-'/*'?/0.:&'=@'A9')\$&&-'.\$'78&'\$:&\/#/*":+'"*"\\+)/)B' #&789-'(")'#9-/?/&-'")')89(*'/*'7"<\\&'C'79')89:7&*'78&':&7&-'/#&'79'CD'#/*.7&)@'E/0.:&'C' :&\$:&)&*7)'78&'1234'>8:9#"790:"#'9<7"/*&-'(/78'78&'#9-/?/&-'#&789-@''

;-&)<&-2+0)5=#	>(1?<&(@&-2=#	3 A #	BA#
F*/7/''%'	G@H'	=GG'	G'
HG'	G@H'	HG'	IG'
HG∉G='	G@H'	J'	KJ'
HD@G='	G@H'	J'	KJ'
HD@GC'	G@H'	=GG'	G'
LC@G='	G@H'	=GG'	G'

;-&)<&-2+0)5=#	>(1?<&(@&-2=#	3 A #	BA#
F*/7/''%'	G@D'	KJ'	J'
G@MG'	G@D'	KJ'	J'
C@GG'	G@D'	IG'	HG'
D@JG'	G@D'	CJ'	IJ'
I@GG'	G@D'	J '	KJ'
M∉JG'	G@D'	KJ'	J'

 $I + /40\% \ '(\&6789\& > -0* = "3*/0" = \&*#3" + 2\%1\&G + 3 - \&3 - \%\& = \%3 - *1\& = \%23 + *2\%1\& + 2\&! "#\%\& '(\&'FB\& = = \&>*\%4 = 2\&G'' \cdot \&4 \cdot \%1\& "21\&3*3" \&042\&3 + = \%\&G'' \cdot \&JHCB'\& = +243\%\&G + 3 - \&3 - \%\&5\$*G\&0" 3\%\& *5\&BCK = \&\&, \ \%0\& = +243\%C\&$

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<u>32%(45-5#1.#06)#5%&'()#-2#*,)'9C*!8</u>#

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A8&')89:7'#&789-'(")'7:"*)?&::&-'79'2:&\$5N234'79'8";&'78&':&7&*7/9*'7/#&'9?'CD'#/*.7&''')' -/)\$%"+&-'/*'7"<%&'H0'48:9#"790:"#'0?/0.:&'HP')89(&-'78"7'>&:7''/*'>9#\$9*&*7)'9?'78&')"#\$%&')"7.:"7/*0'78&'-&7&>79:0'A9'0&7'78&'099-'-&7&>79:':&)\$9*)&B'?%9('>&%%'(")'>8"*0&-'79'9*&'(/78' G0J##'\$"78'%&*0780'A8&'>8:9#"790:"#'9<7"/*&-'(/78'*&('?%9('>&%%B'?/0.:&'LB')89(&-'*9')"7.:"7/9*'9?'-&7&>79:'<.7'78&'\$&"Q'-.&'79'%"7&:'&%.7/*0'>9#\$9*&*7)'0(8/>8'':&'9.:')"#\$%&)'9?' /*7&:&)7'>9*?/:#&-'<+':.**/*0'/*'6!P''':&')9')#"%%'78"7'78&+''':&'<":&%+';/)/<%&'/*'78&' >8:9#"790:"#0' I + /40% k K (\$9 - 0* = "3*/0" = \$50* = \$70%, : O789 (\$P4% 3* \$ - + / - \$" = *423. \$*5\$ > *23" = 11.0K23\$, 0%. %23 \$ + 2&0c" = e5

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A8&'>9#\$\\&U/7+'9?'78&')"#\$\\&'(")'?/:)7')/#\$\\?\&-'.)/*0'&U7:">7/9*'#&789-@'DGV';\;''>&79*/7:/\&' /*'("7&:'(")''--&-'79'78&')"#\$\\&''*-')9*/>"7&-'?9:'HG'#/*.7&)@'A8&')"#\$\\&'(")'78&*'>&*7:/?.0&-' "7'=CGGU0'?9:'J'#/*.7&)@'A8&')"#\$\\&'(")'9<)&:;&-'79')&\$":"7&'/*'7(9'\\"+&:)X'.\$\$&:'>\\&":'\\"+&:' (/78')9#&'9?'78&'-/))9\\;&-')"#\$\\&)''*-'\\9(&:';/)>9.)'\\"+&:'(/78'.*-/))9\\;&-')"#\$\\&)@'A8&' .\$\$&:'\\"+&:'(")'>9\\\&>7&-B'''*-'\\9(&:'\\"+&:'(")'' $I + /40\% \ln(\&6789\&, \%''L\&*5\&3-\%\&. "=, \%\&.\%, "0"3\%1\&G+3-\&NBDSQTQU\&''>\%3*2+30+\%\&+2\&G''3\%0C\&; "=, \%\& 1+...*\&Q\%1\&+2\&NBDSQTQU\&''>\%3*2+30+\&\%\&+2\&G'''3\%0\&'''21\&>\%230+54/\%1\&5*0\&F\&=+243\%.\&''3\&''HBB\&V/C\&G''':=, \&\%\&V'':=, \&\%\&V'':=, \&\%\&V'':=, \&\%\&V'':=, \&\%\&V'':=, \&\%\&V'':=, \&\%\&V':=, \&\%\&V':=, \&\%\&V':=, &\&V'':=, &\&V':=, &\&V':=, &\&V':=, &\&V':=, &\&V':=, &\&V':=, &\&V':=, &\&V':=, &\&V':=, &V':=, &V':$

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Y?7&:'>9*?/: #/*0' (/78'123456!'78"7'9.:')" #\$%&)'9?'/*7&:&)7'8"; &'<&&*'>9 #\$%&7&%+':&>9; &:&-'/*' .\$\$&:').\$&:*"7"*7'%"+&:'"?7&:'?9.:':9.*-)'9?' (")8/*0B'/7' (")'78&*'\$.:/?/&-'.)/*0'2:&\$5N234@' T":/9.)'?:">7/9*)' (&:&'>9%%&>7&-'"*-' (&:&'"%)9'"*"%+,&-'9*'78&'"*"%+7/>"%'123456!'79' -&7&:#/*&' (8/>8'?:">7/9*)'79'.)&'?9:'?.:78&:'\$.:/?/>"7/9*'9?'78&'>9 #\$9.*-)'9?'/*7&:&)70'!9#&' ?:">7/9*)'>9*7"/*&-'#9:&'78"*'9*&')" #\$%&)'9?'/*7&:&)7' (8/>8').00&)7)'78"7')&>9*-'\$.:/?/>"7/9*'/)' *&&-&-@'' I + /40% kX(k70%, :0789k> - 0* = "3*/0" = k*5k>*\$\$%>3% 1 k4, , % 0 k\$" < % 0 ck I\$*Gk>%\$\$k*5k, "3-k\$%2/3-kHk = = k G".k4.% 1 ckY"0+*4.k50">3+*2.kG%0% k>*\$\$%>3% 1 k3*k"2" \$< W% * 2k"2" \$<3+>"\$k6789:); ckk

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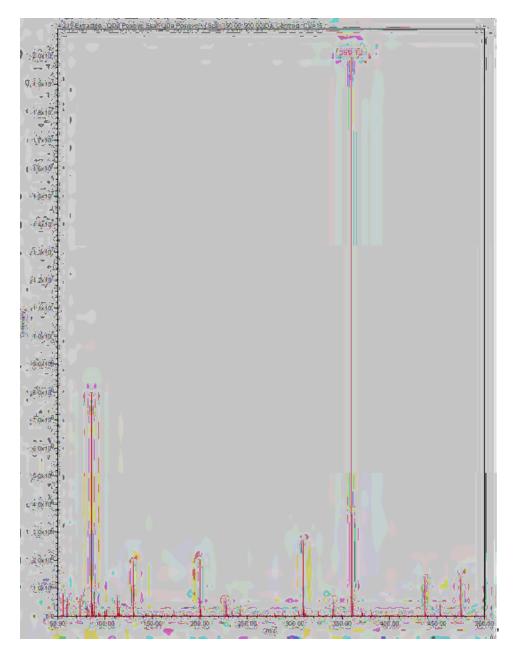
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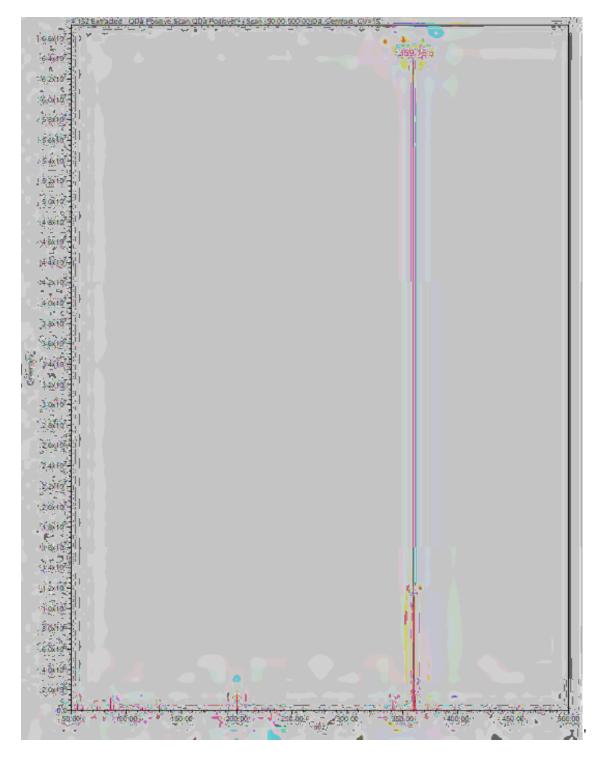


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I + /40% l[(lb); lb., %>30'' lb% V30''>3% I lb50* = lb50''>3+*2lb' lb*5b>* = , *421 lbG+3 - lb3 - % l0% 3% 23+*2lb3+ = % lb*5lb JCHH lb=+243% Clb

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