

Figure 1

A

Pol II-p

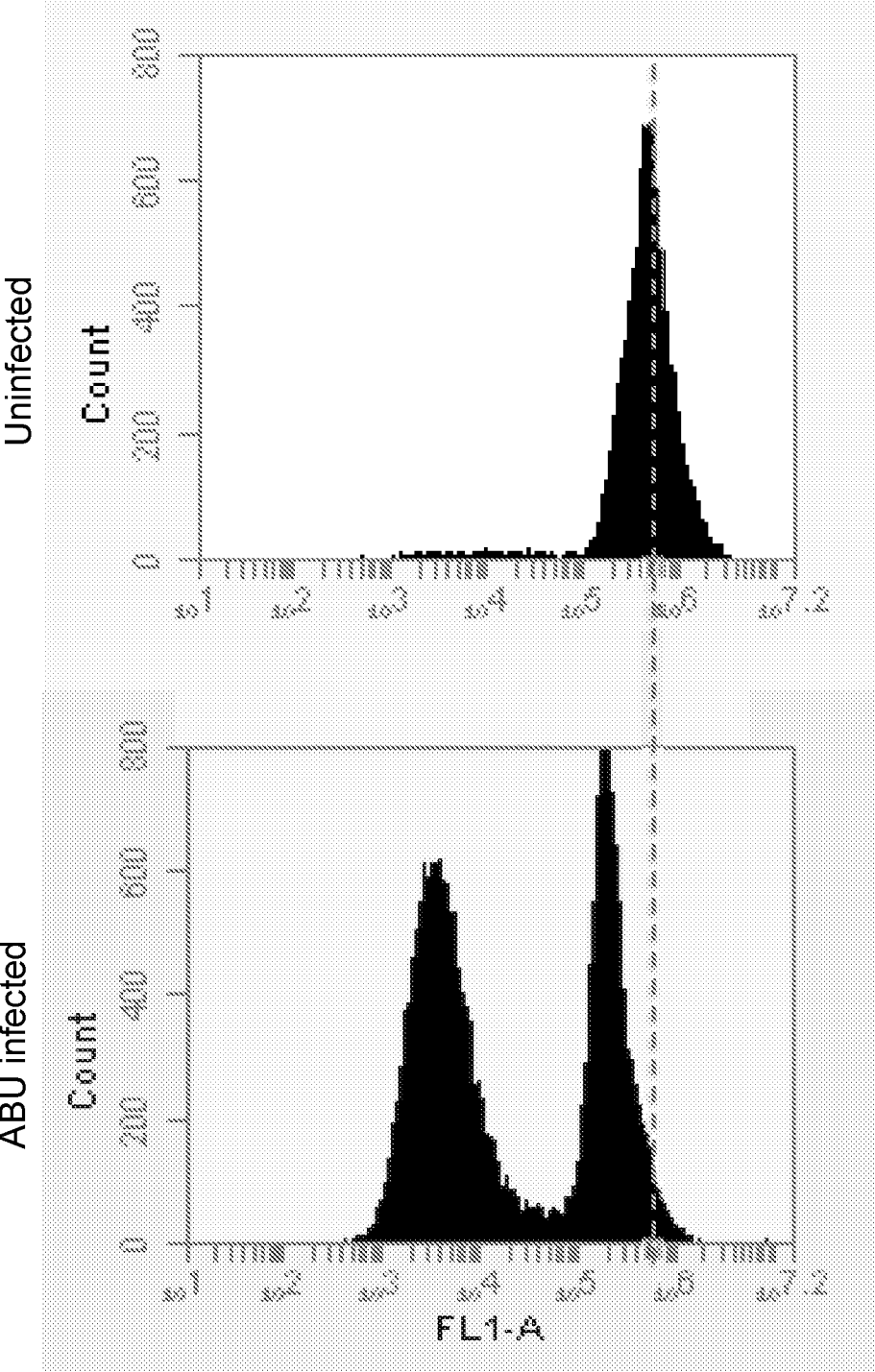


Figure 1 Cont'd

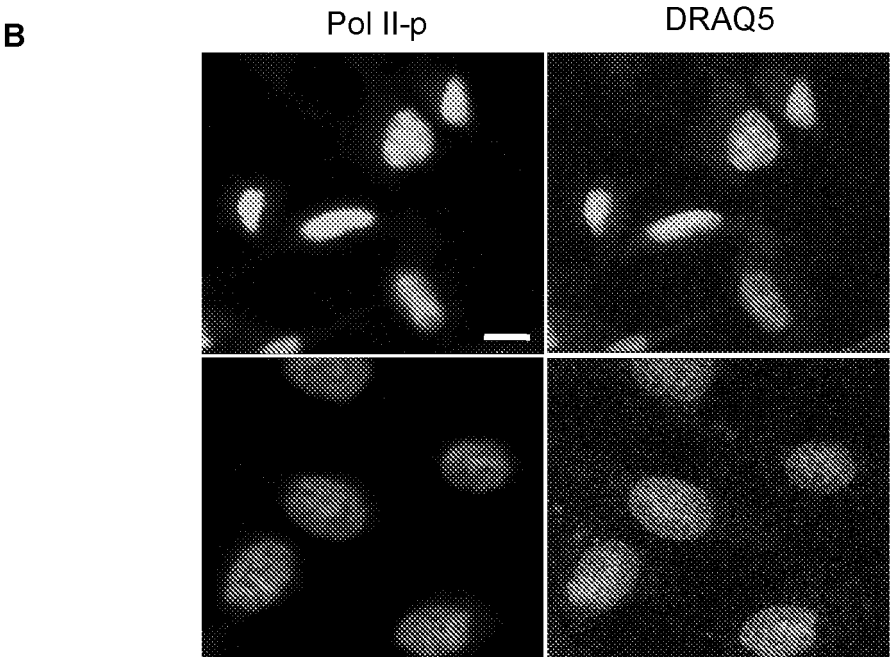
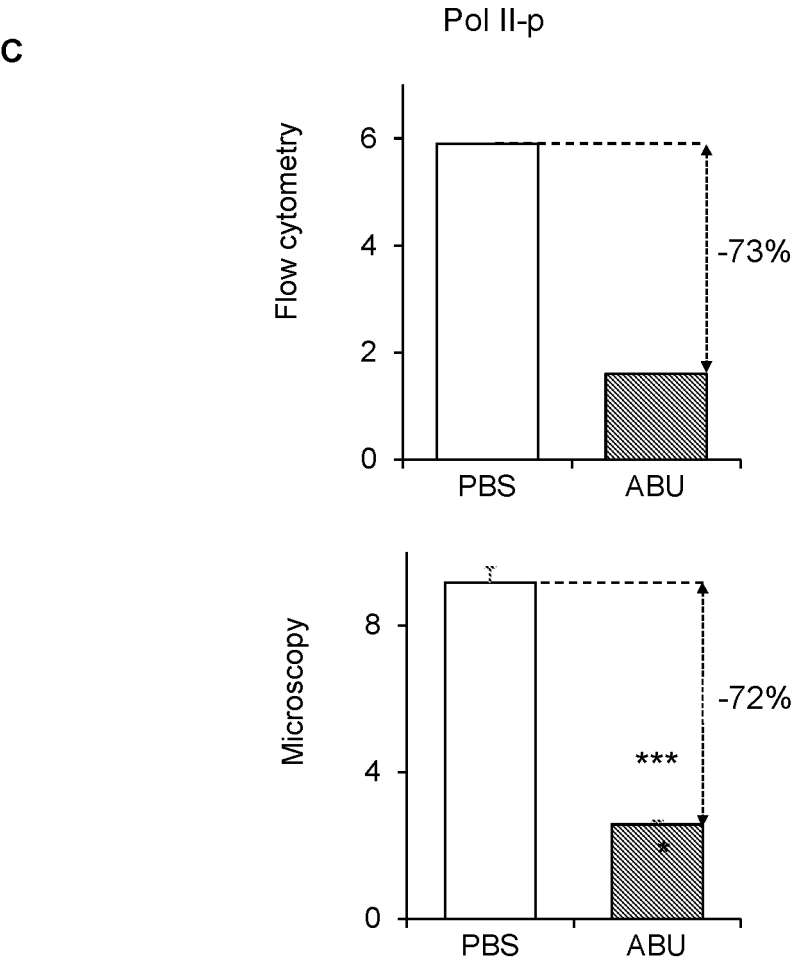


Figure 1 Cont'd

D

Pol II-p

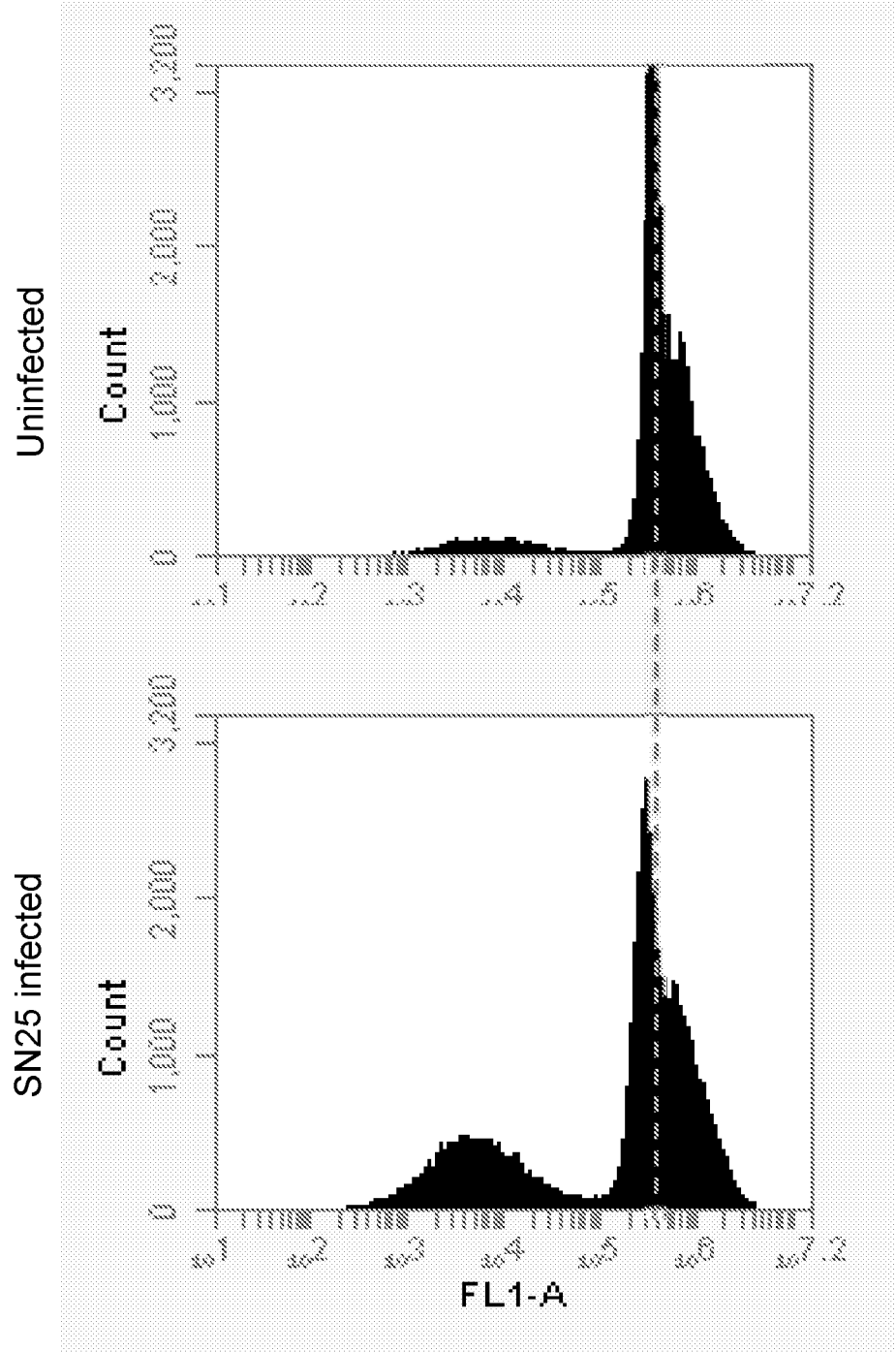


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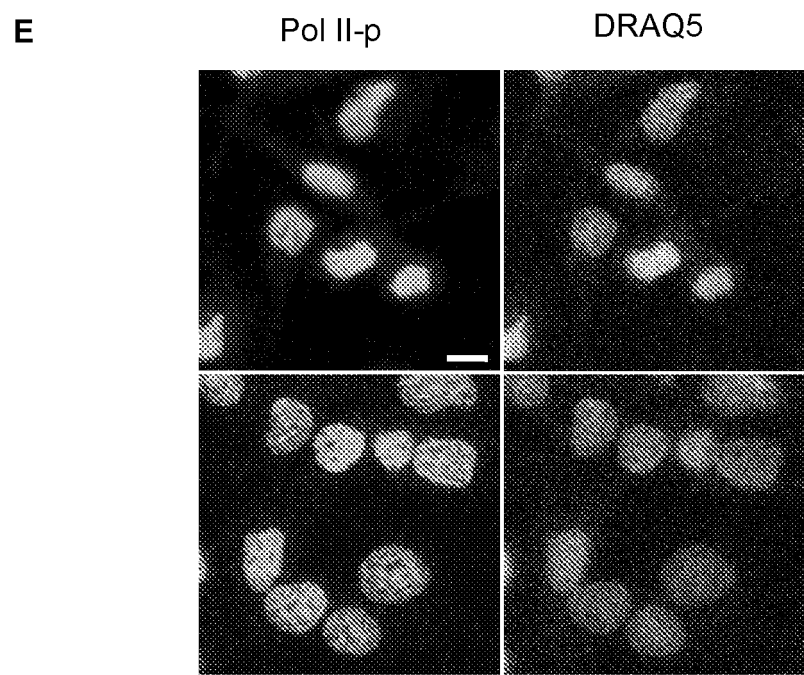
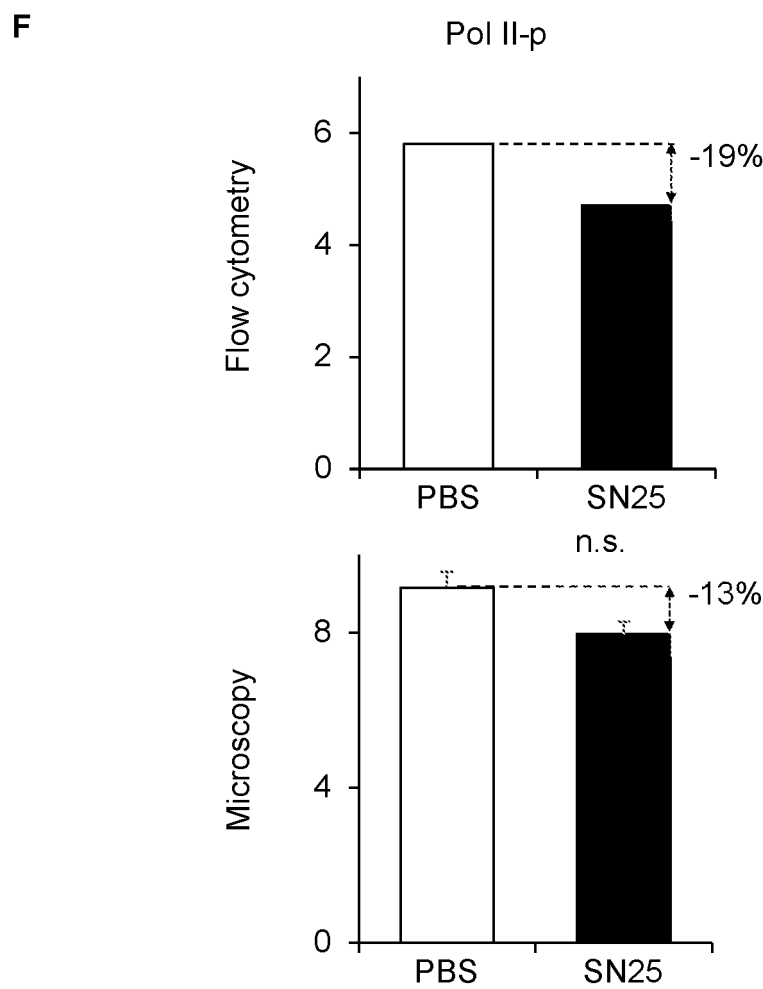
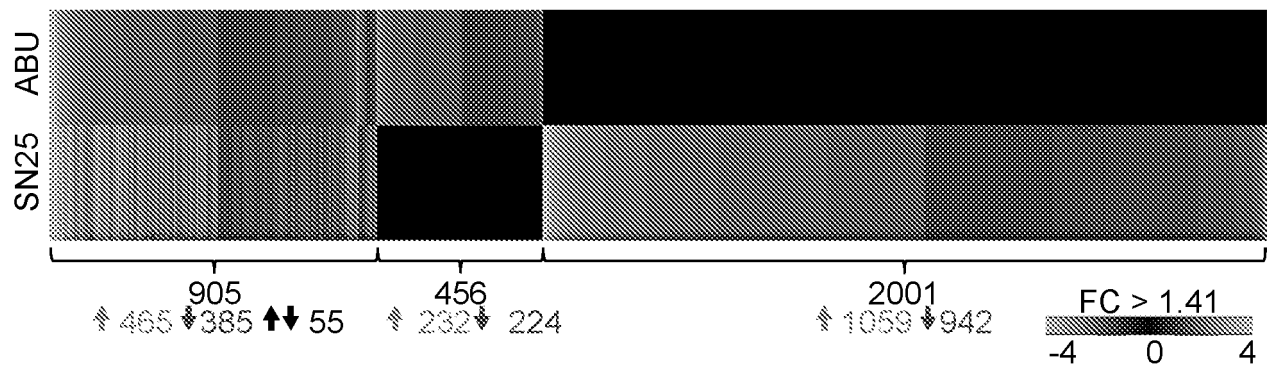


Figure 1 Cont'd

G



H

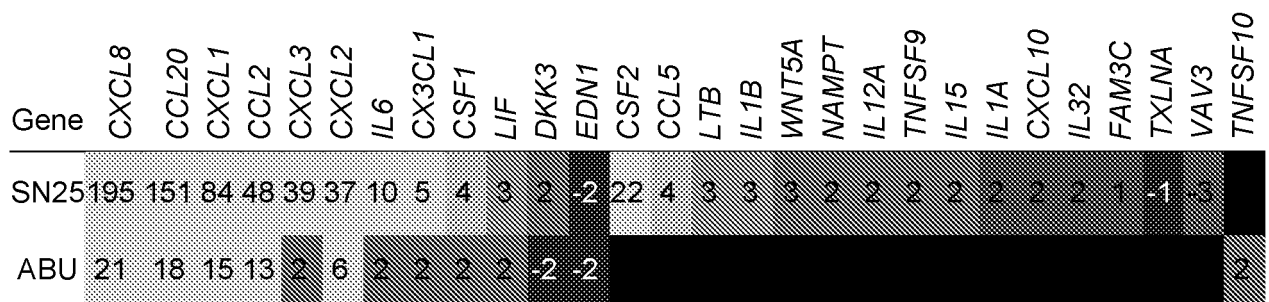


Figure 2

A

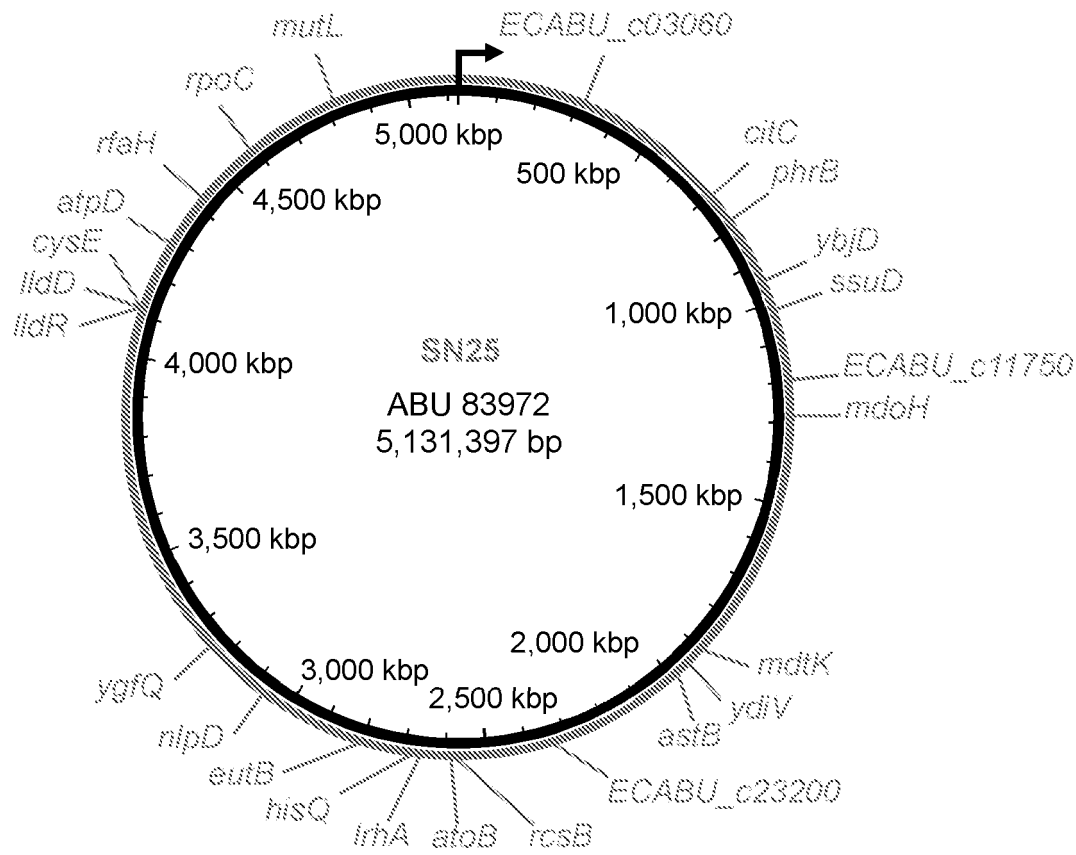


Figure 2 Cont'd

B

no acid change	Gene
Ala81Val	<i>cysE</i>
Val72Gly	<i>ECABU_c03060</i>
Ala37Thr	<i>phrB</i>
Thr322Ala	<i>ybjD</i>
Arg227Cys	<i>ssuD</i>
Ala39Val	<i>ECABU_c11750</i>
Tyr463Cys	<i>mdoH</i>
Ala124Thr	<i>mdtK</i>
Gln58Arg	<i>ECABU_c23200</i>
Ile106Asn	<i>rcsB</i>
Thr18Ala	<i>lrhA</i>
Tyr52Cys	<i>hisQ</i>
Ile400Val	<i>eutB</i>
Tyr174Cys	<i>atpD</i>
Lys959Arg	<i>rpoC</i>
Lys79Thr	<i>mutL</i>
Tyr209His	<i>nlpD</i>
Pro52Leu	<i>rfaH</i>
Lys139fs	<i>citC</i>
Gly200fs	<i>ydiV</i>
Gly445fs	<i>astB</i>
Thr271fs	<i>atoB</i>
Gly336fs	<i>ygfQ</i>
Glu22fs	<i>lldR</i>
Gly27fs	<i>lldD</i>

Figure 2 Cont'd

C

Genes mutated in SN25	Function
<i>nlpD</i>	Lipoprotein, regulator of amidase (cell wall hydrolase) with a potential function in cell wall formation. Gene located in an operon with the <i>rpoS</i> gene, which encodes a subunit of <i>E. coli</i> RNA polymerase (Sigma S).
<i>lldD</i>	Enzyme that catalyzes the conversion of L-lactate to pyruvate in the aerobic L-lactate metabolism.
<i>lldR</i>	Regulator of the <i>lldPRD</i> operon, involved in L-lactate metabolism.
<i>rfaH</i>	Transcriptional anti-terminator, required for efficient expression of UPEC long chain LPS and hemolysin. Affects biofilm formation, loss attenuates virulence.
<i>cysE</i>	Serine acetyltransferase, catalyzes the conversion of L-serine to O-acetyl-L-serine. Affects biofilm formation in <i>E. coli</i> K-12.
<i>lrhA</i>	Regulator of flagella, motility and chemotaxis genes.
<i>mdoH</i>	Negative regulator of colanic acid capsular polysaccharide.
<i>rcsB</i>	Positive regulator of colanic capsule biosynthesis.

Figure 3

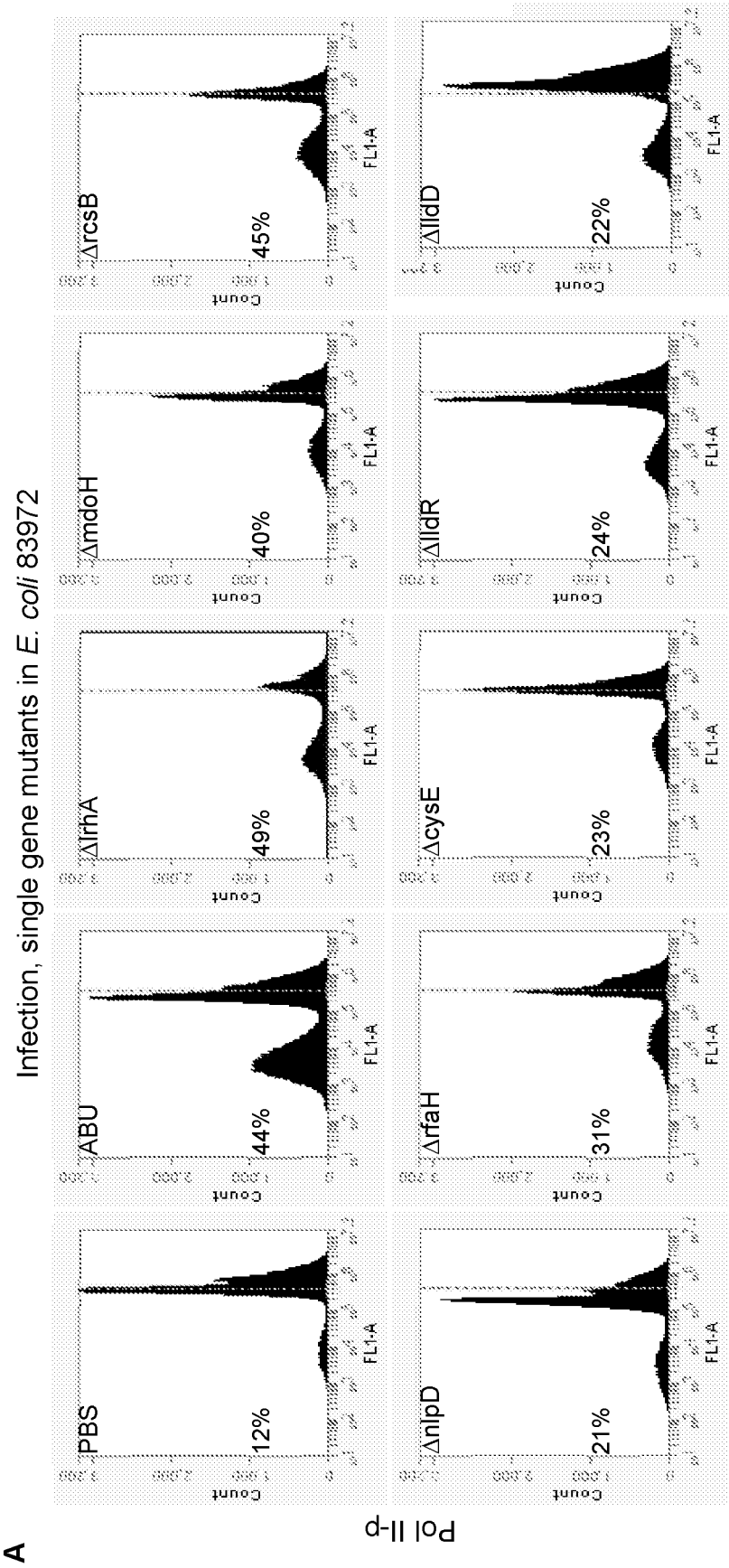
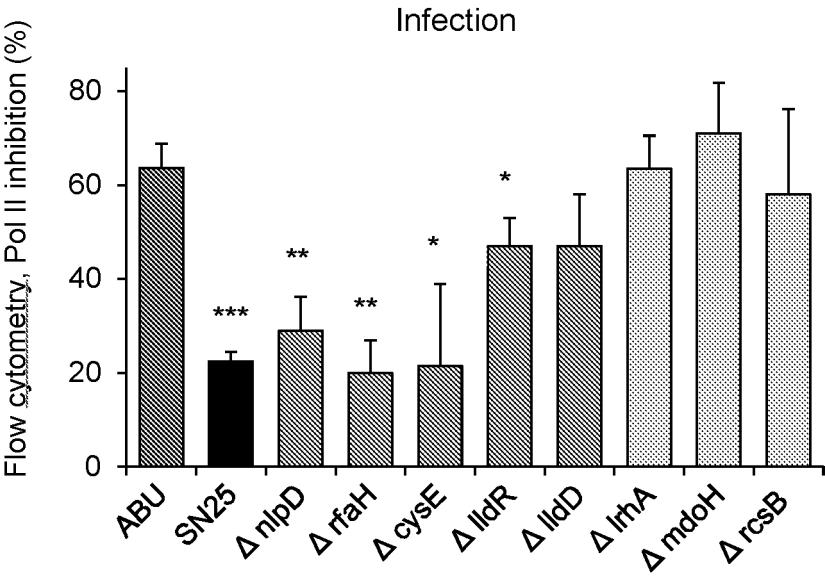
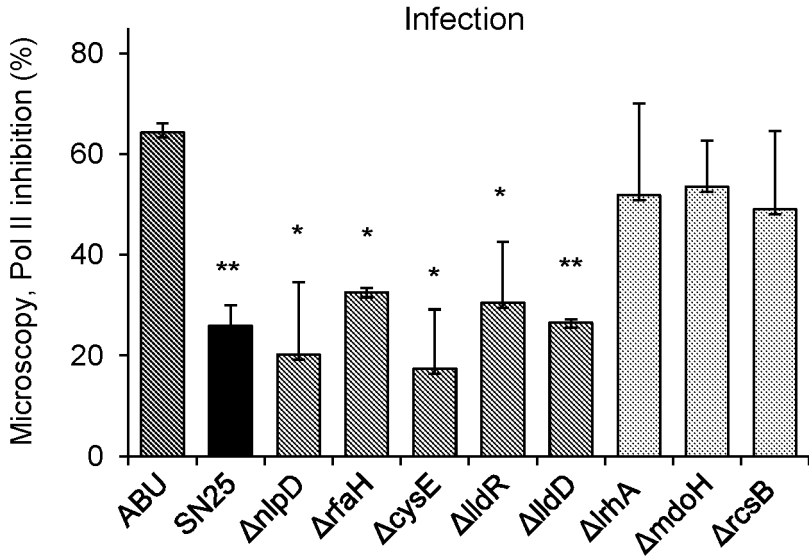


Figure 3 Cont'd

B



C



E

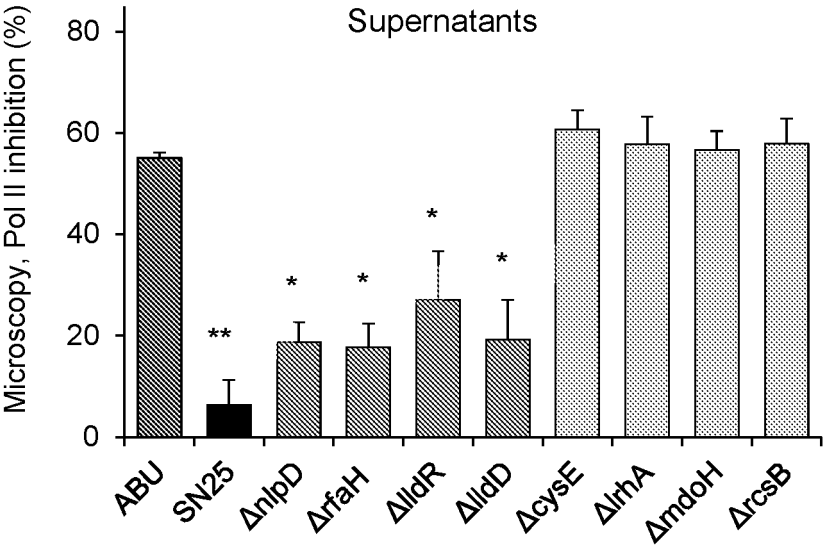


Figure 3 Cont'd

D

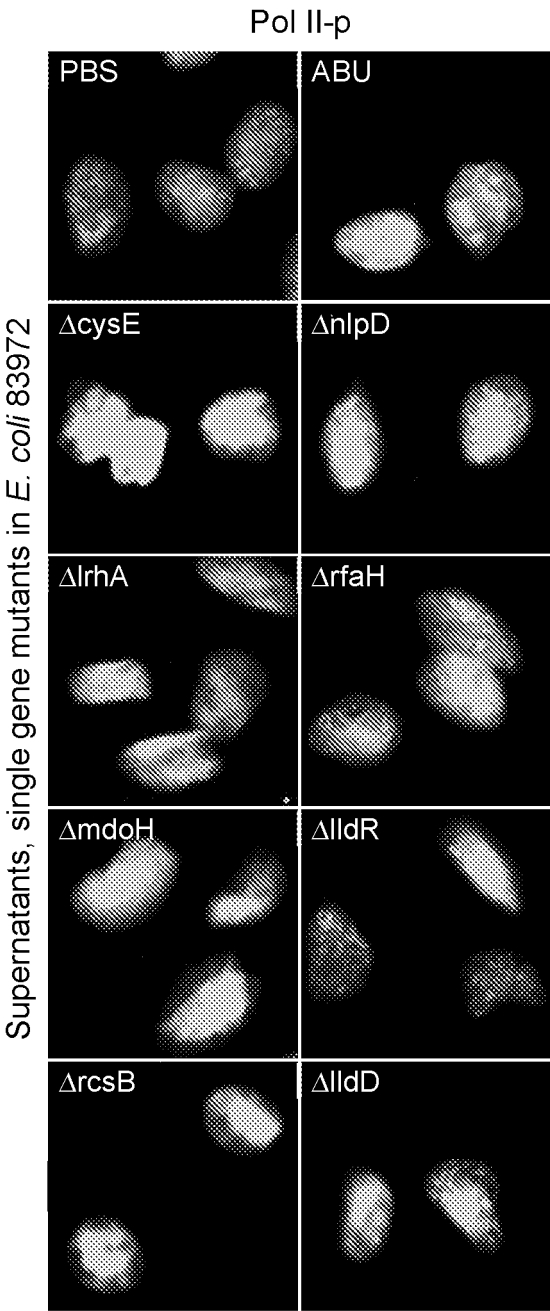
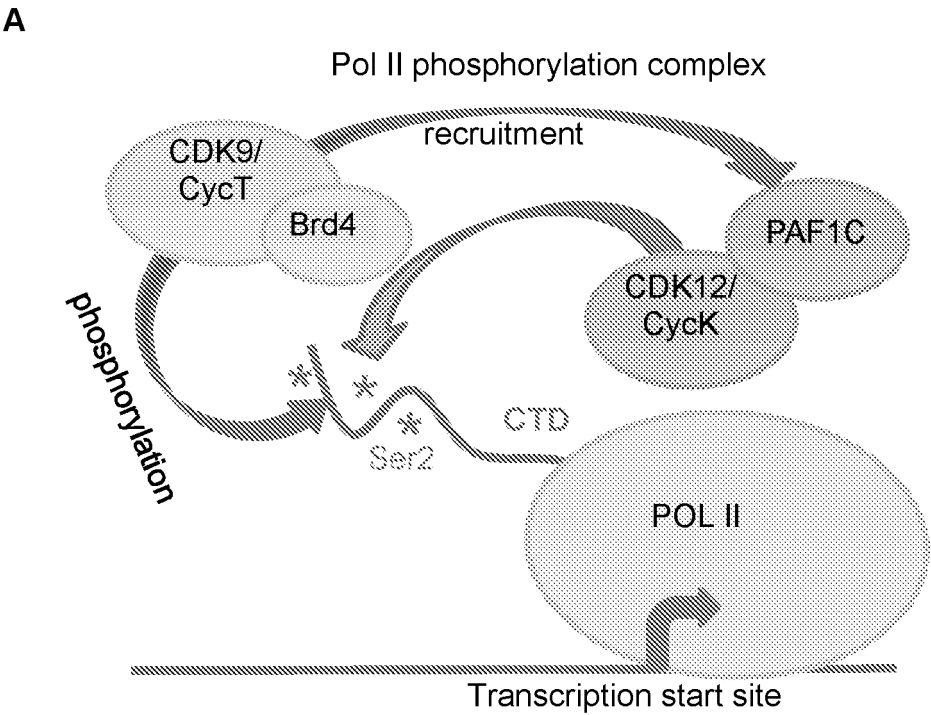


Figure 4



B

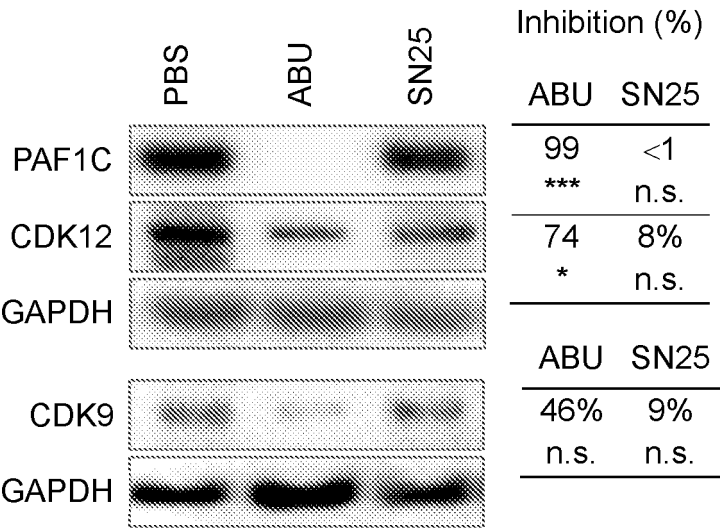


Figure 4 Cont'd

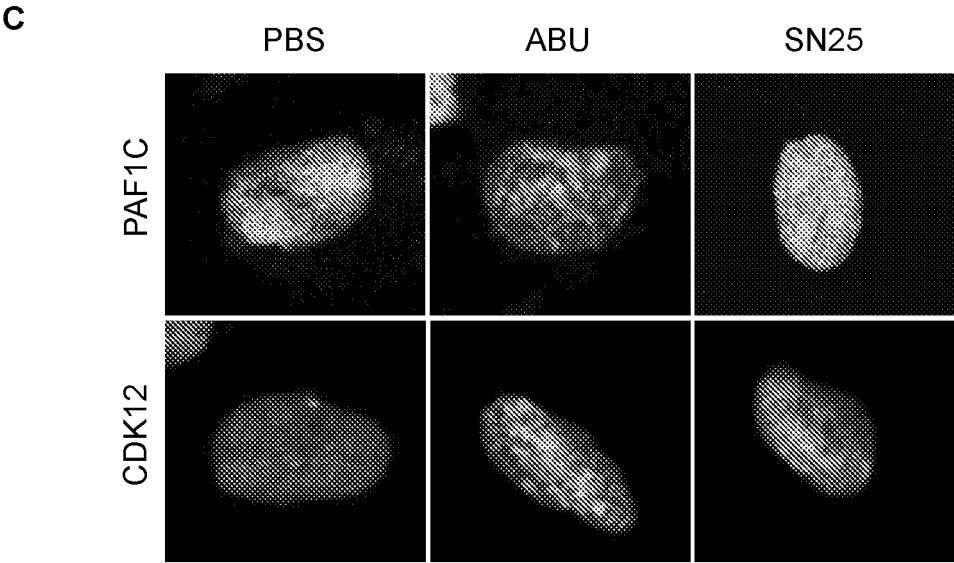
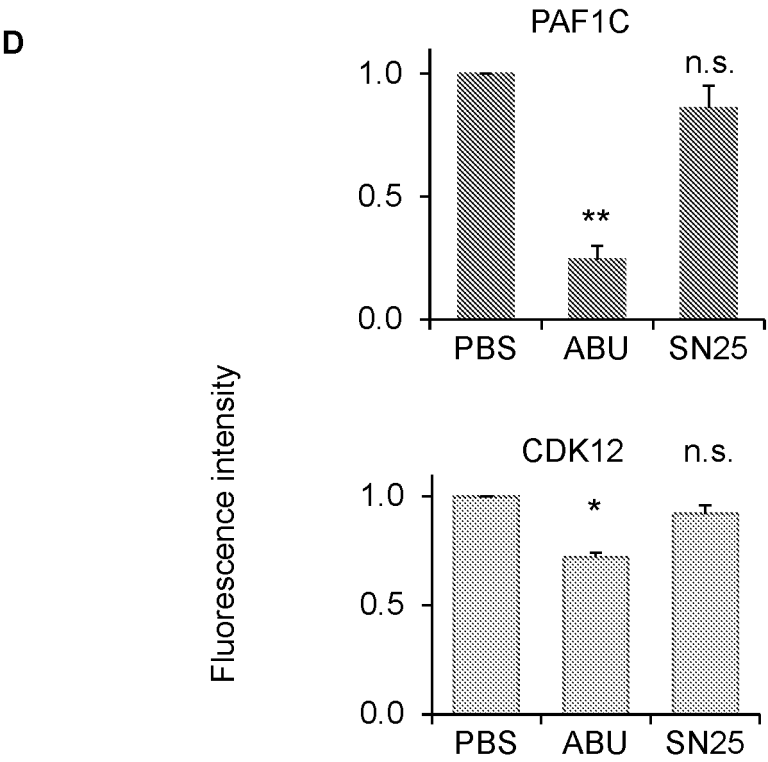
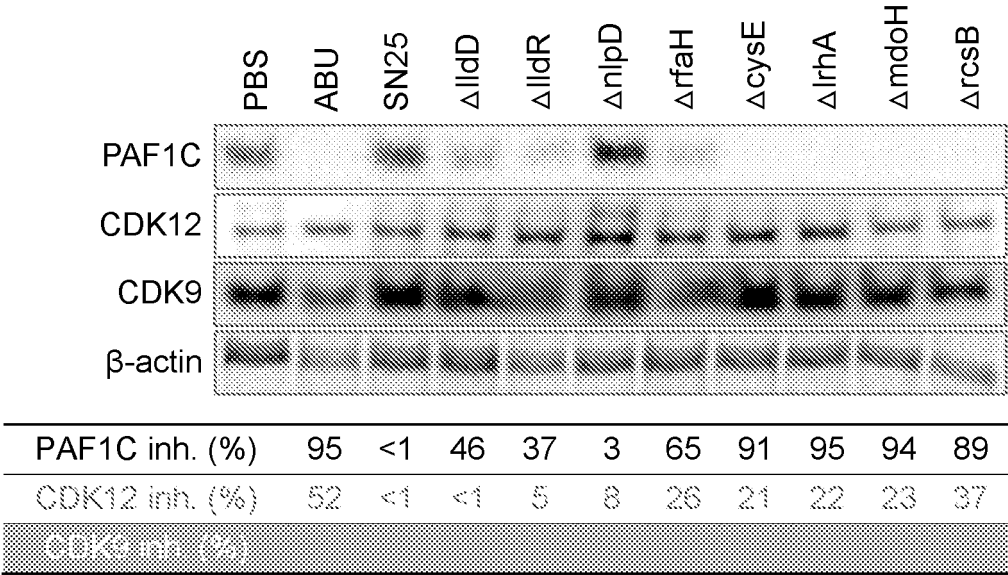


Figure 4 Cont'd

E



F

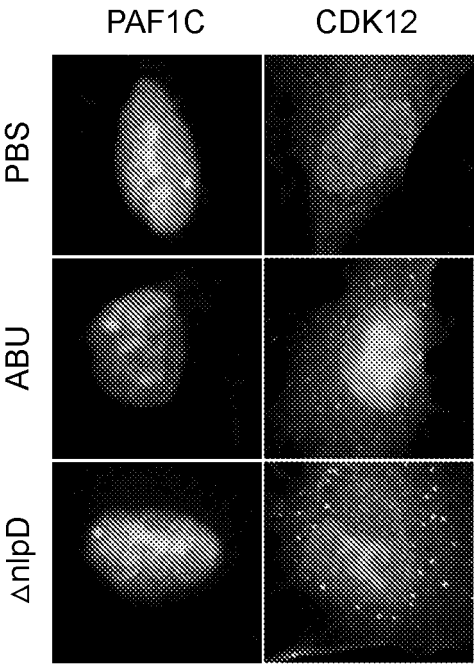


Figure 5

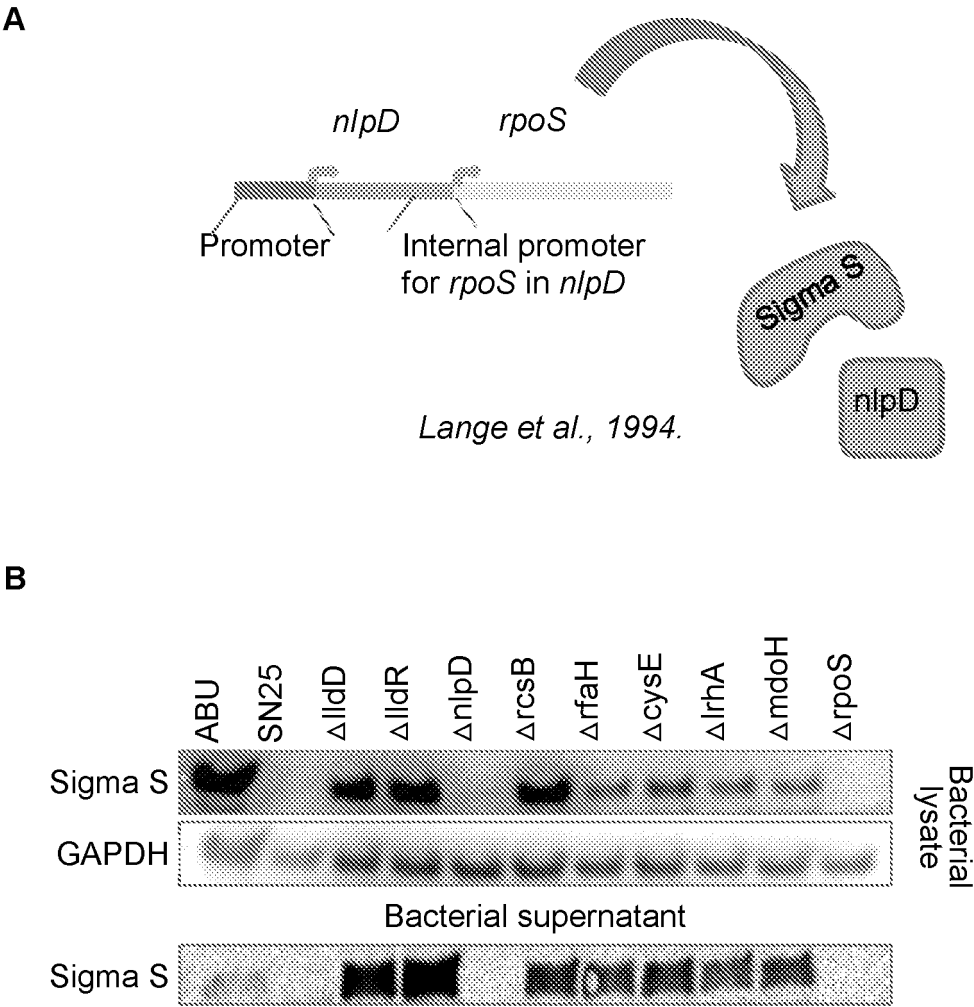
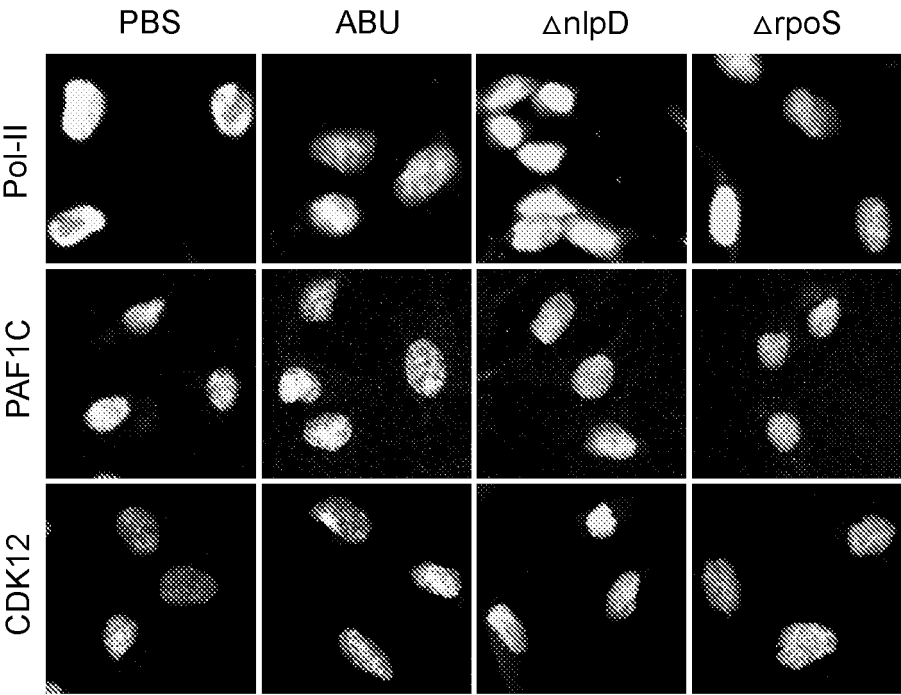


Figure 5 Cont'd

C



D

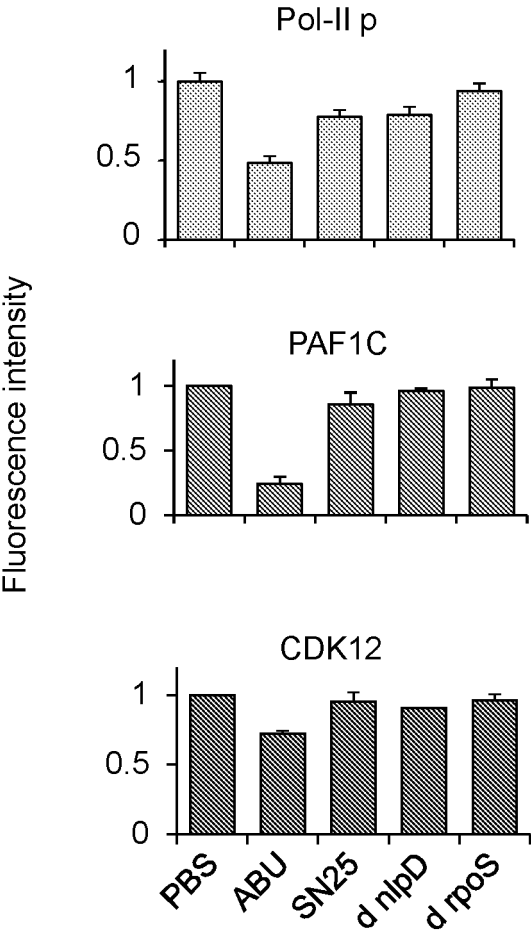
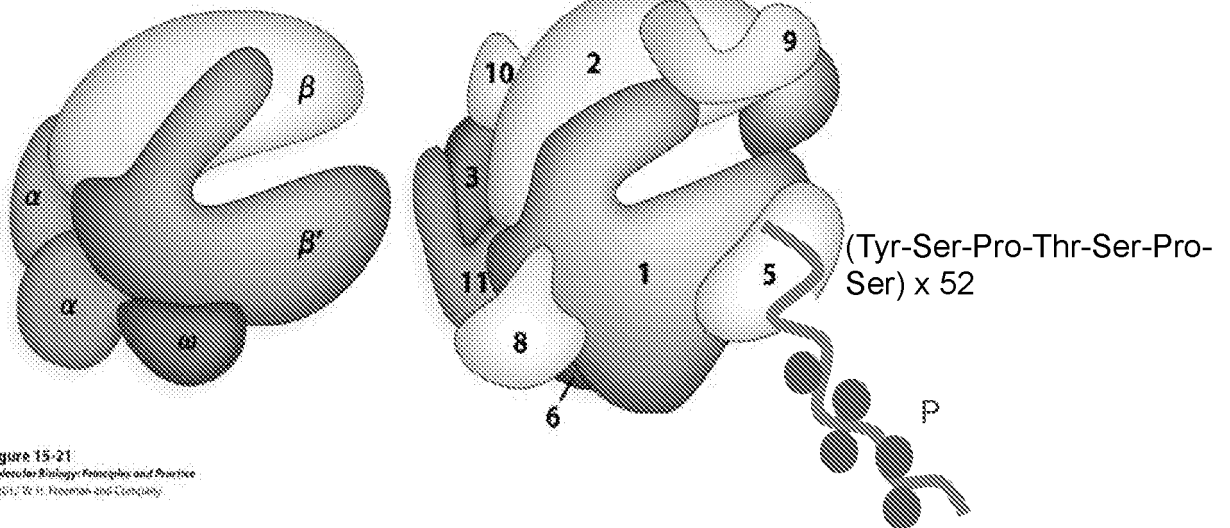


Figure 5 Cont'd

E

Bacterial RNA polymerase

Eukaryotic RNA polymerase II



F

Sigma S

TBP

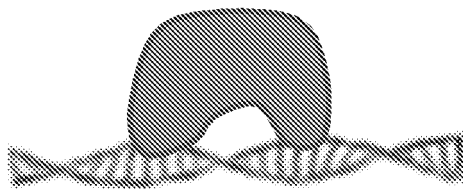
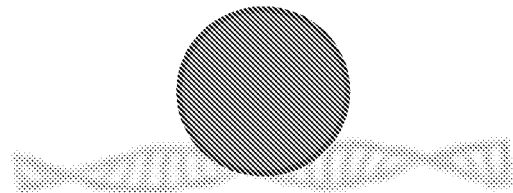
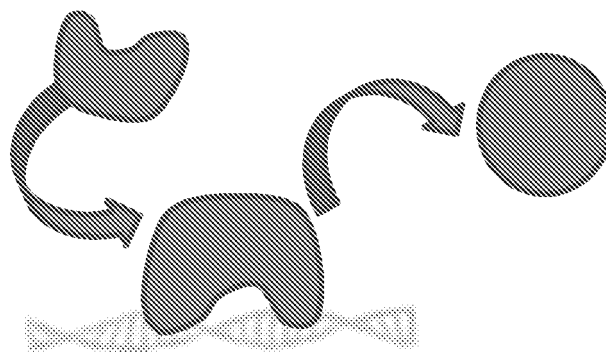
TCTATAA
prokaryoticCCTATAA
humanCCTATAA
human

Figure 5 Cont'd

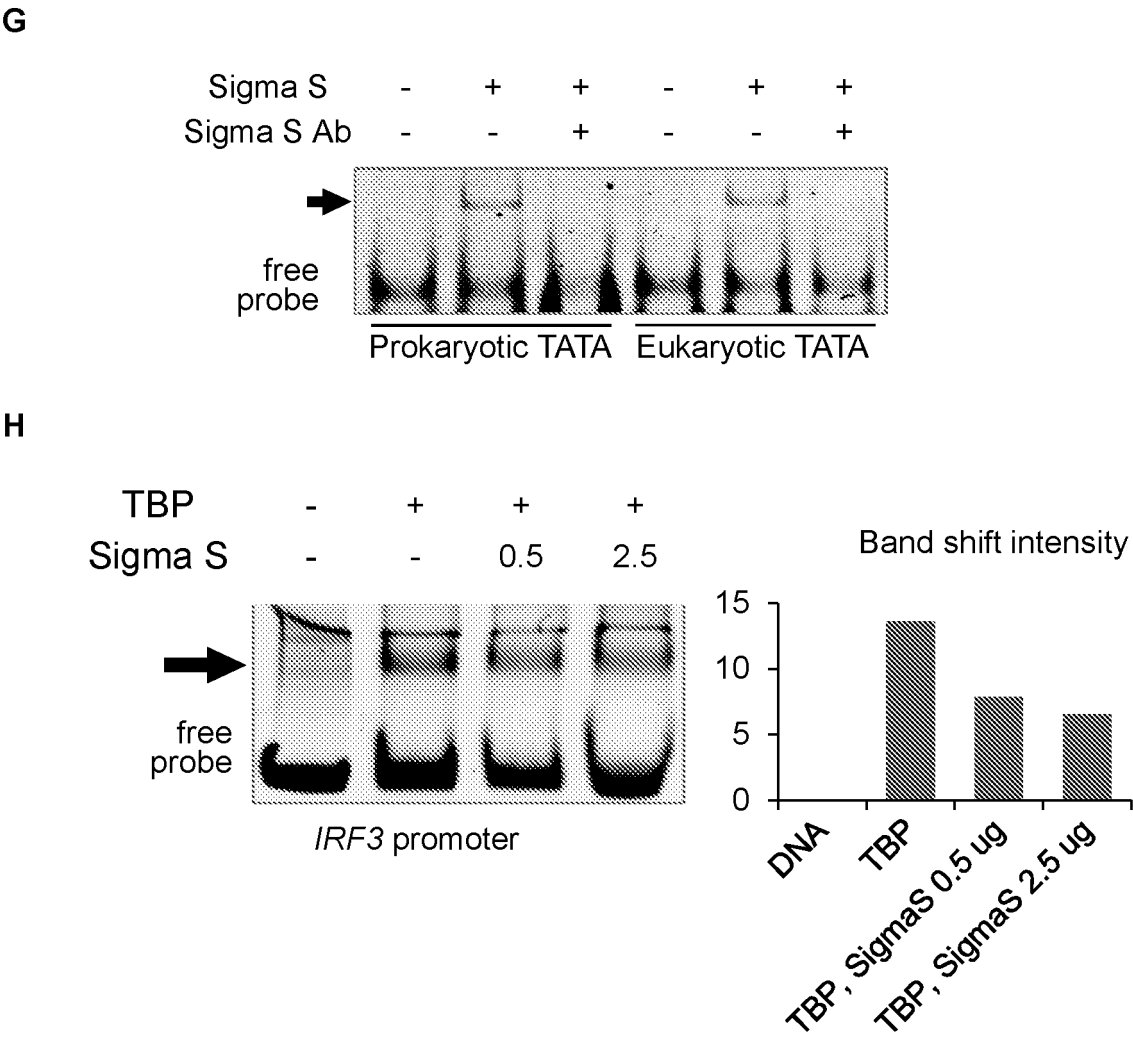


Figure 6

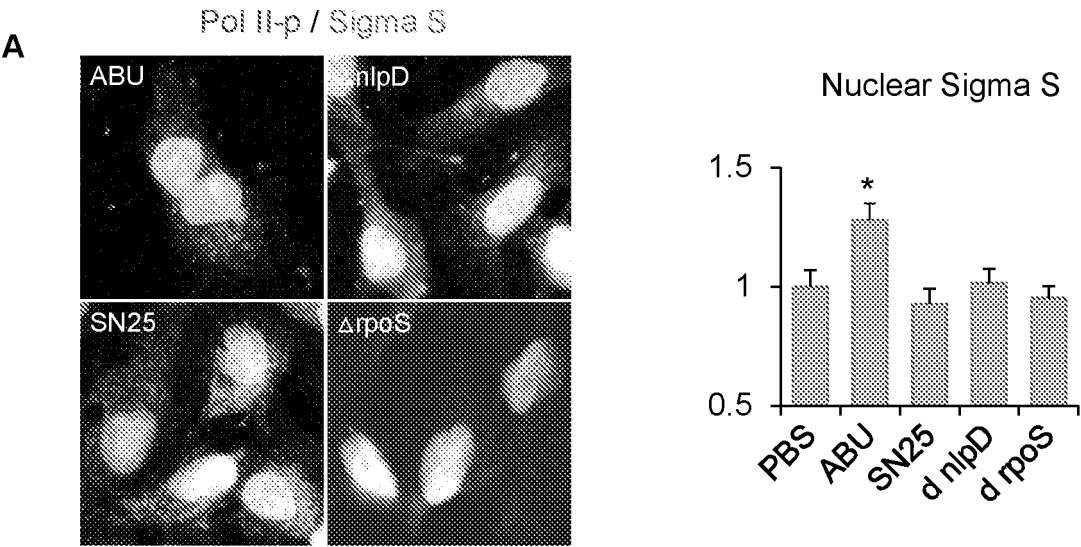


Figure 6 Cont'd

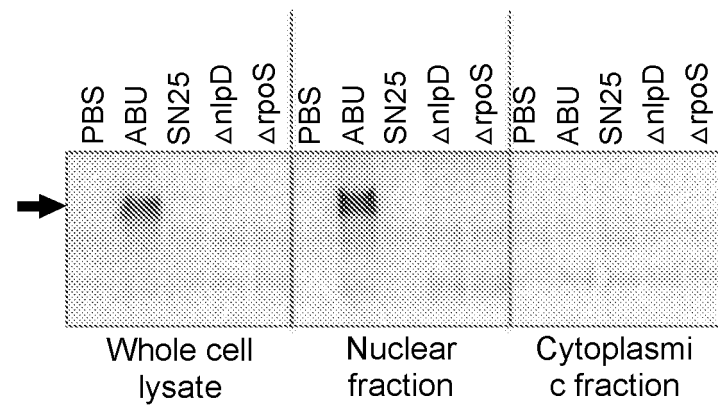
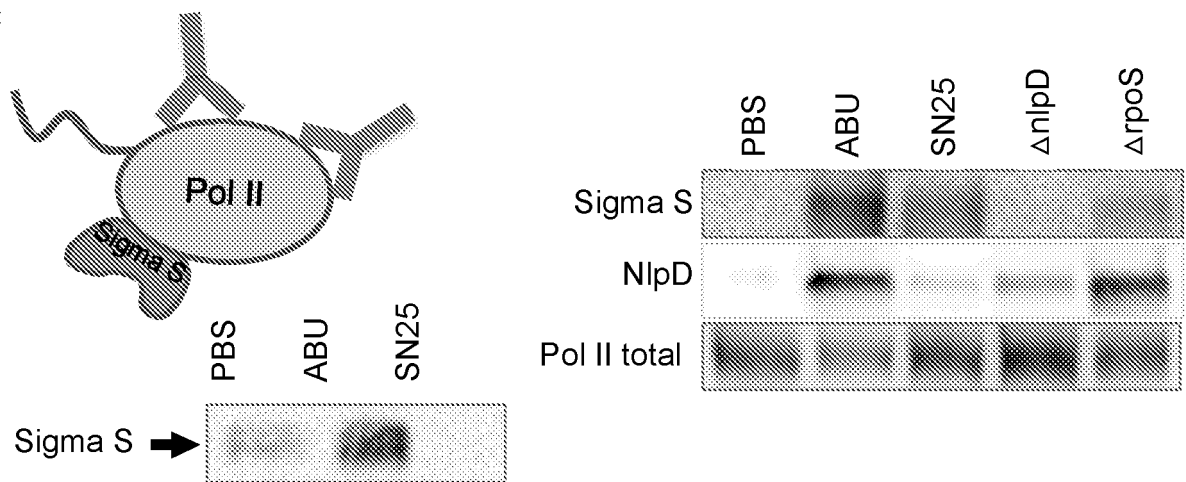
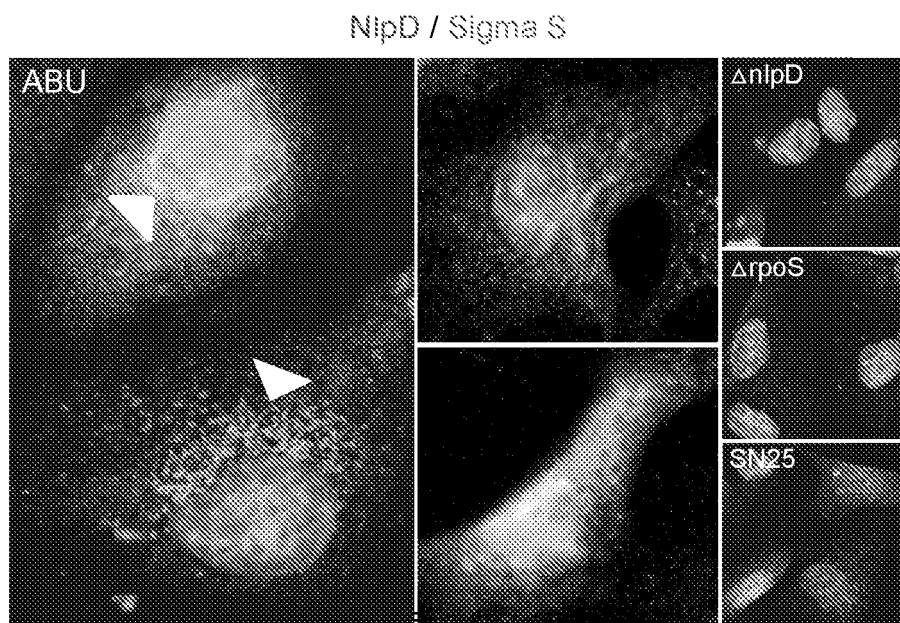
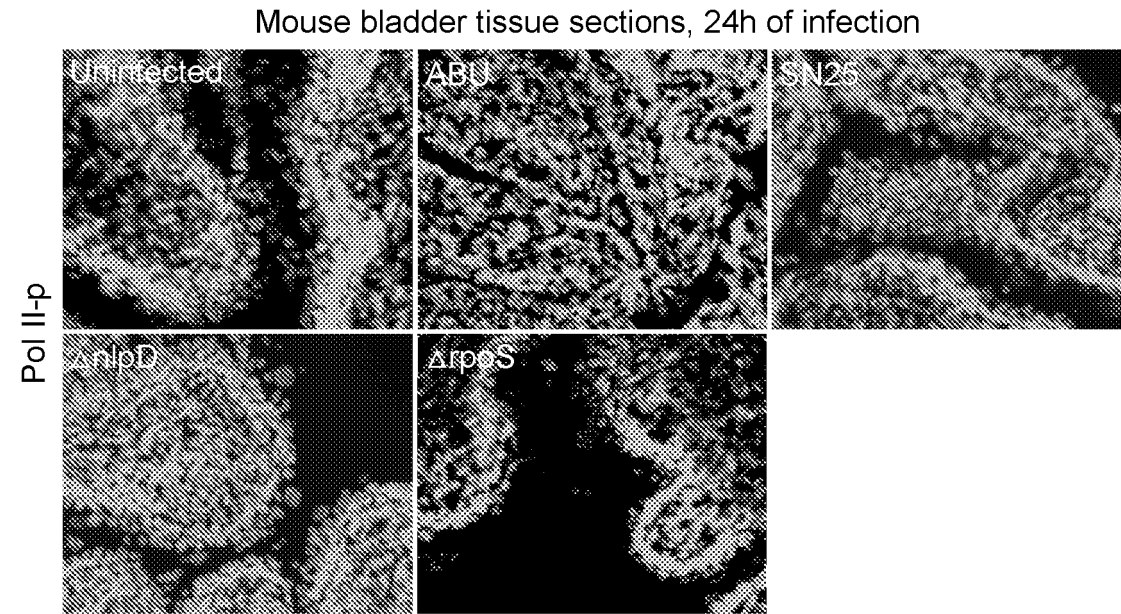
B**C****D**

Figure 7

A



B

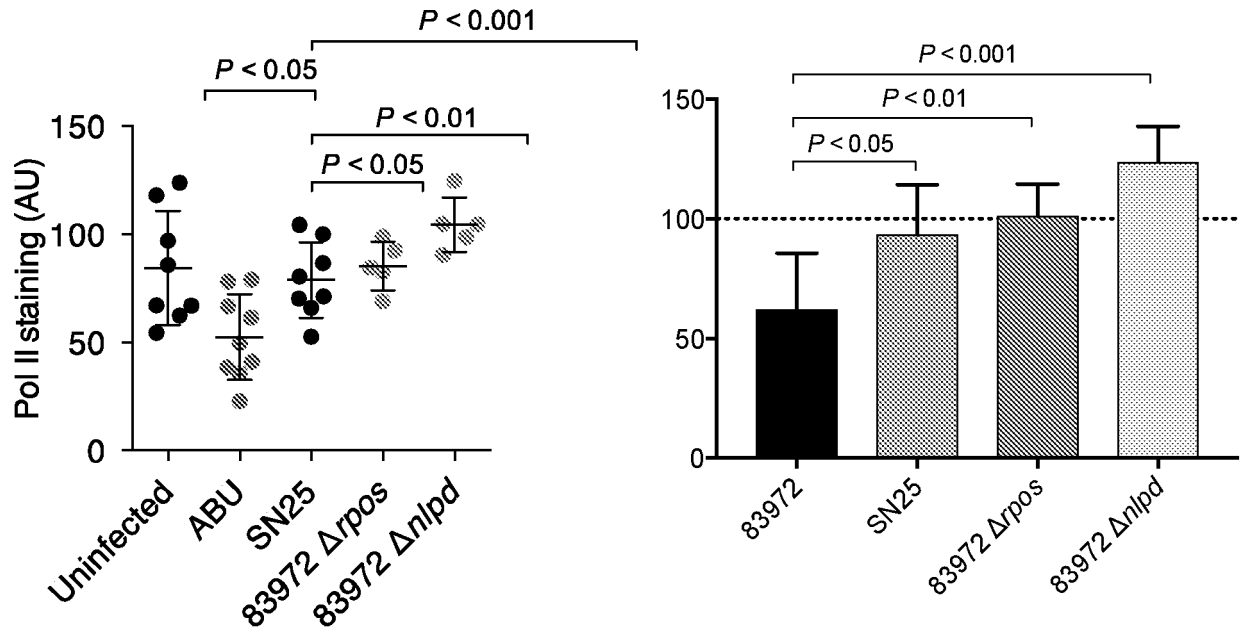


Figure 7 Cont'd

C

