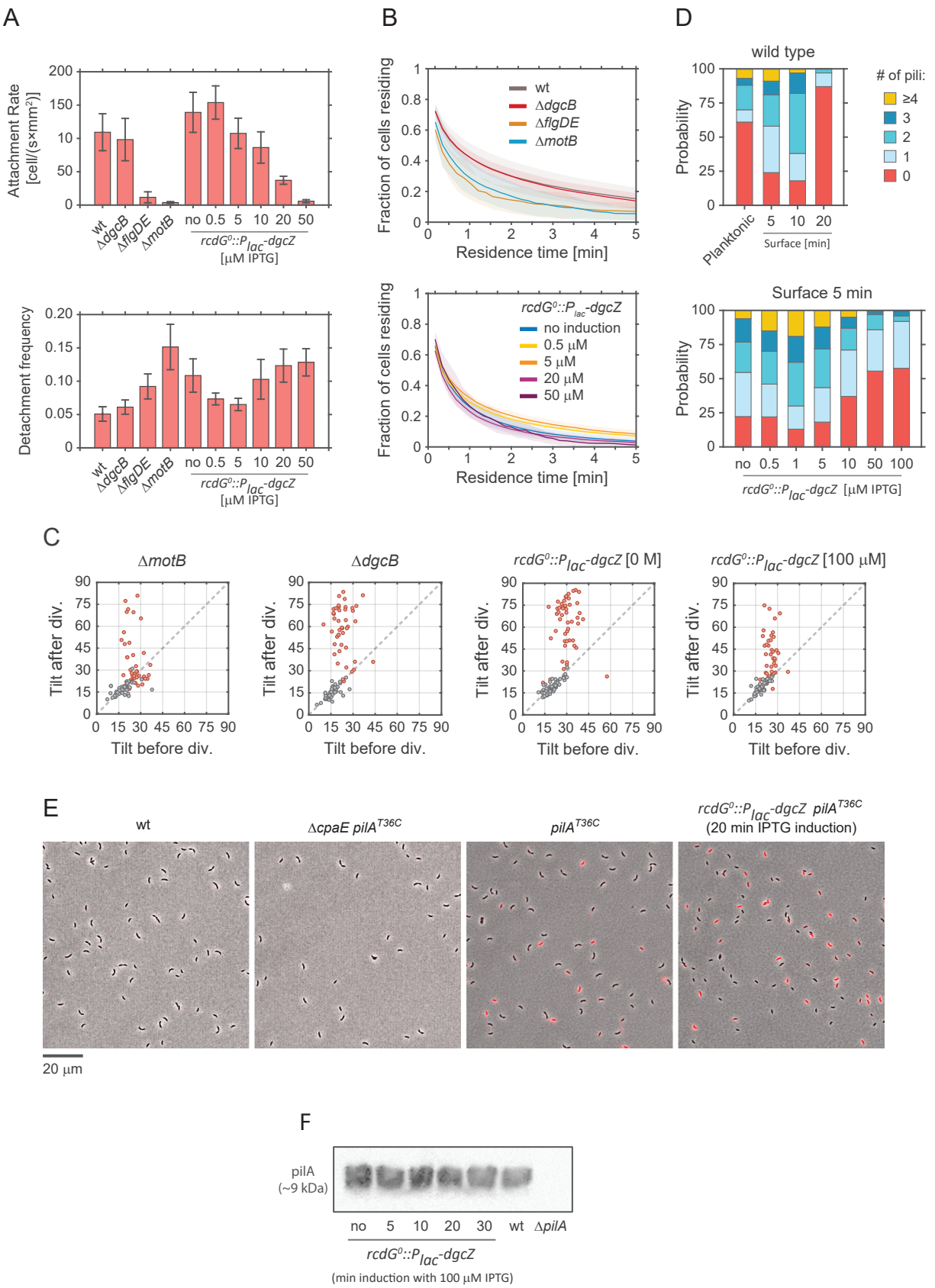
A
Attachment Rate [cell/(s×mm²)]
wt
ΔdgcB
ΔflgDE
ΔmotB
no 0.5 5 10 20 50
rcdG⁰::P_lac-dgcZ [μM IPTG]
Detachment frequency
B
Fraction of cells residing
Residence time [min]
wt
ΔdgcB
ΔflgDE
ΔmotB
rcdG⁰::P_lac-dgcZ
no induction
0.5 μM
5 μM
20 μM
50 μM
D
wild type
Probability
# of pili:
≥4
3
2
1
0
Planktonic
5 10 20
Surface [min]
Surface 5 min
no 0.5 1 5 10 50 100
rcdG⁰::P_lac-dgcZ [μM IPTG]
C
ΔmotB
ΔdgcB
rcdG⁰::P_lac-dgcZ [0 M]
rcdG⁰::P_lac-dgcZ [100 μM]
Tilt after div.
Tilt before div.
E
wt
ΔcpaE pilA^T36C
pilA^T36C
rcdG⁰::P_lac-dgcZ pilA^T36C
(20 min IPTG induction)
20 μm
F
pilA
(~9 kDa)
no 5 10 20 30 wt ΔpilA
rcdG⁰::P_lac-dgcZ
(min induction with 100 μM IPTG)