A

PfFtsH1 endogenous

TM

N-unique   AAA ATPase   peptidase   C-unique

Zn

PfFtsH1$_{91-612}$ [WT]

His$_6$-SUMO   GST

PfFtsH1$_{91-612}$ [E249Q]

His$_6$-SUMO   GST

PfFtsH1$_{91-612}$ [D493A]

His$_6$-SUMO   GST

B

ATPase activity min^{-1} hexamer^{-1}

20

15

10

5

0

WT   E249Q

C

substrate turnover min^{-1} hexamer^{-1}

0.25

0.20

0.15

0.10

0.05

0.00

WT   D493A

■ + ATP
■ no ATP

D

% Growth of control

120

100

80

60

40

20

0

-2   -1   0   1   2

log[inhibitor μM]

■····· actinonin +atc
▼····· actinamide +atc
■— actinonin -atc (FtsH KD)
◆— actinamide -atc (FtsH KD)

E

% Substrate turnover of control

120

100

80

60

40

20

0

-2   -1   0   1   2

log[inhibitor μM]

●— actinonin
■— actinamide