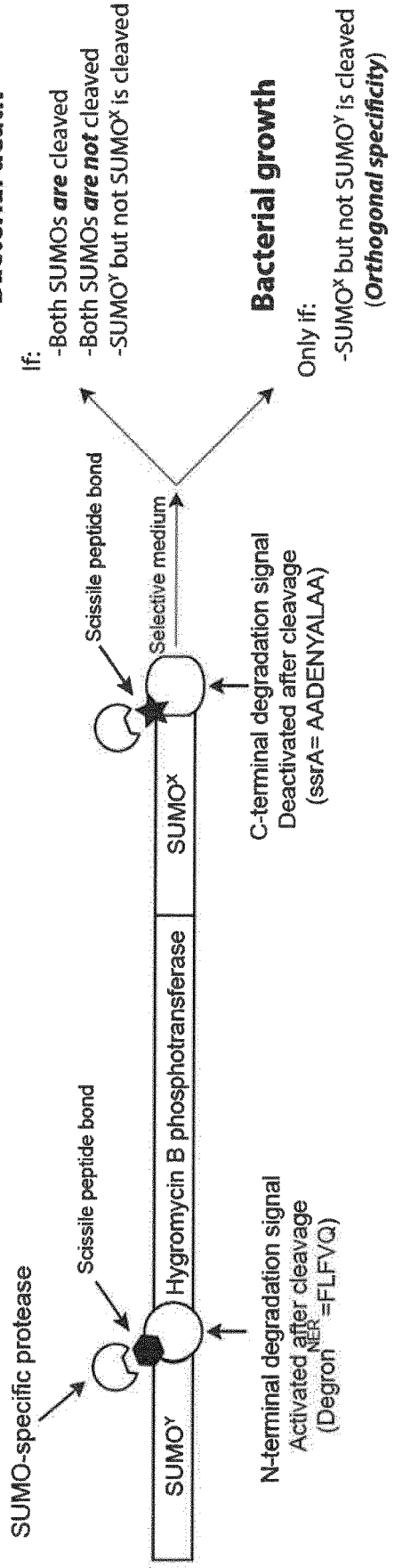
Figure 1


SUMO-specific protease
Scissile peptide bond
SUMO^{Y}
Hygromycin B phosphotransferase
N-terminal degradation signal
Activated after cleavage
(Degron^{NER}=FLFVQ)
Scissile peptide bond
SUMO^{X}
C-terminal degradation signal
Deactivated after cleavage
(ssrA= AADENYALAA)
Selective medium
Bacterial death
If:
-Both SUMOs *are* cleaved
-Both SUMOs *are not* cleaved
-SUMO^{Y} but not SUMO^{X} is cleaved
Bacterial growth
Only if:
-SUMO^{X} but not SUMO^{Y} is cleaved
(*Orthogonal specificity*)