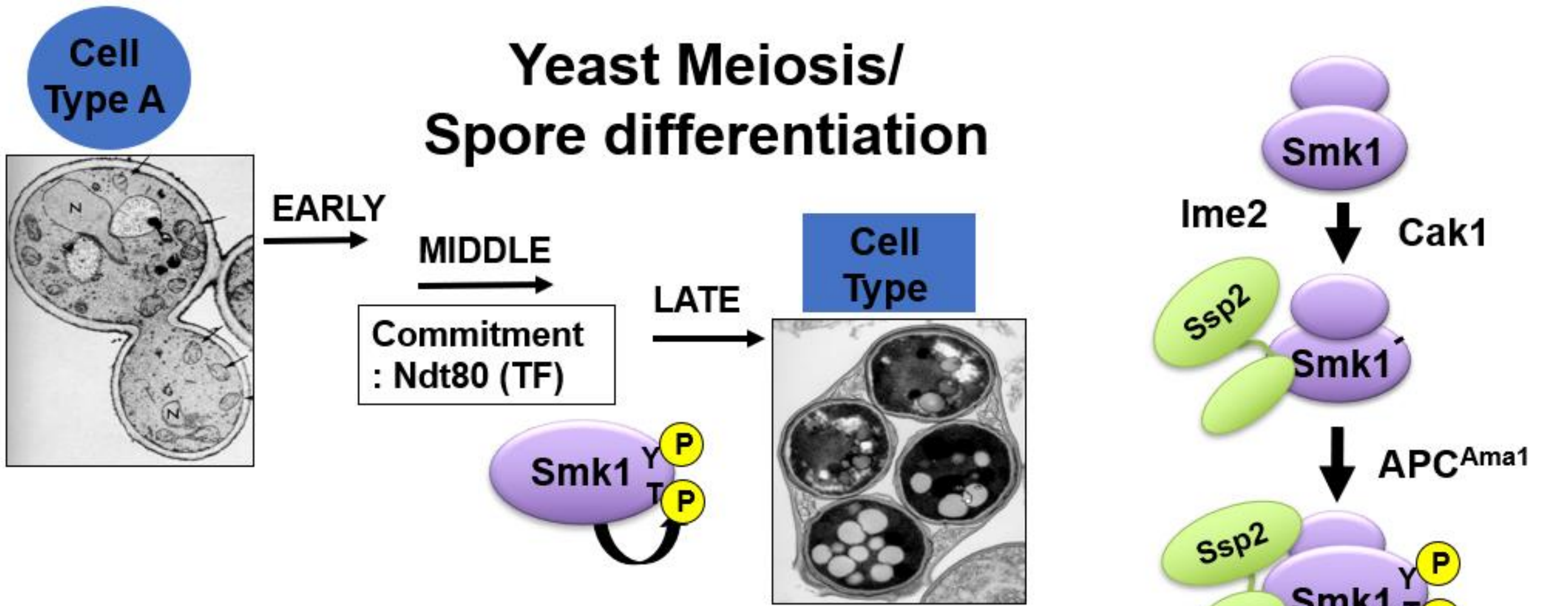


Isc10, a target of the APC/C that couples MAPK activation to the completion of meiosis in yeast

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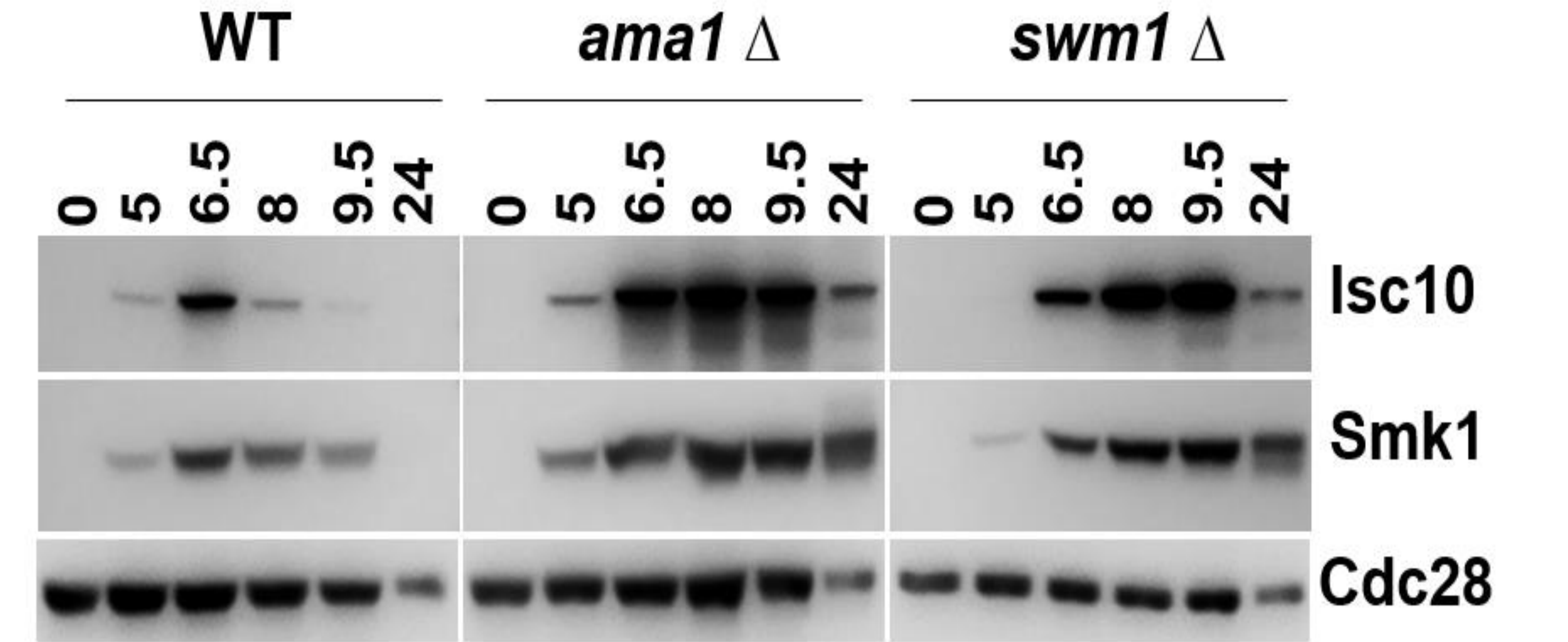
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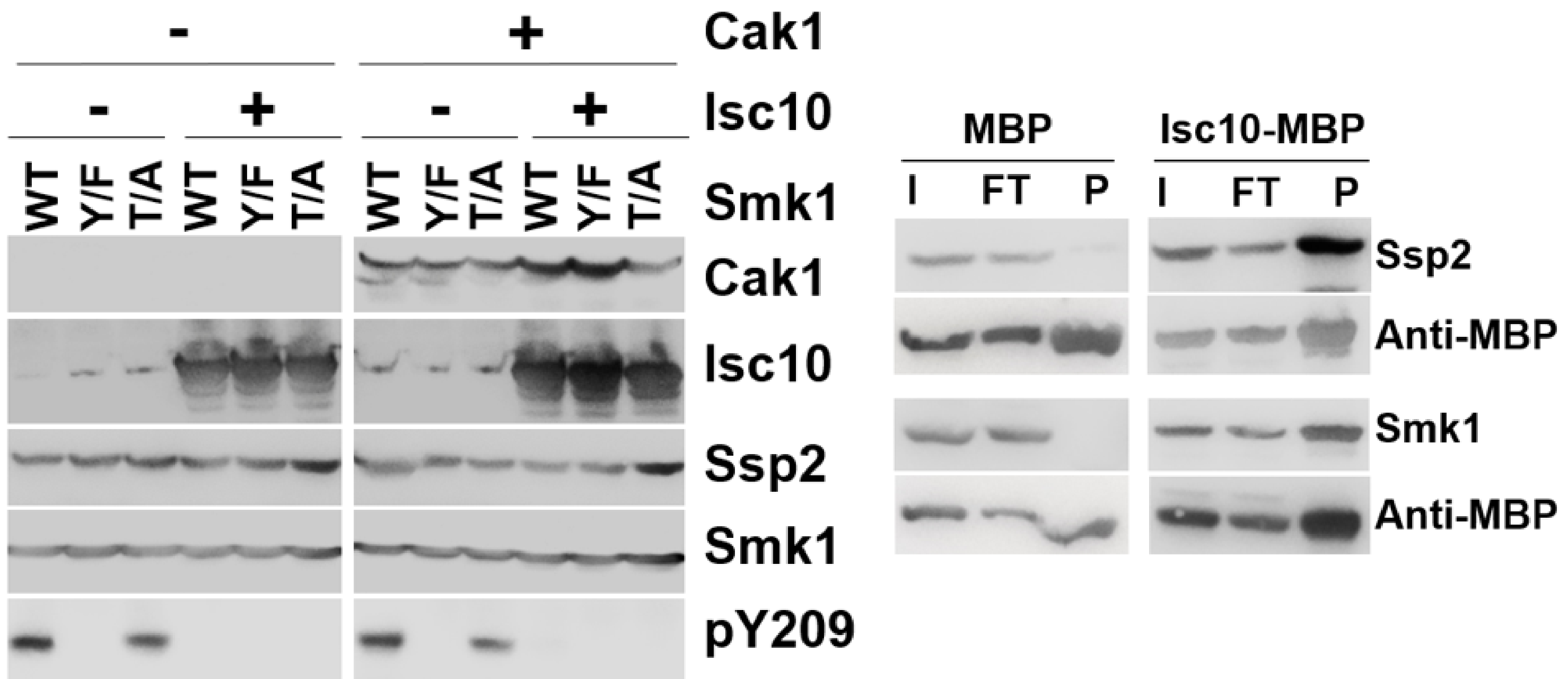
Question : How does APC^{Ama1} regulate Ssp2/Smk1 complex formation and autophosphorylation?

Anaphase Promoting Complex (APC), an E3 Ligase promotes anaphase by targeting proteins for Ubiquitin Proteasomal Degradation

Isc10 protein levels increase in *ama1*Δ and *swm1*Δ during meiosis



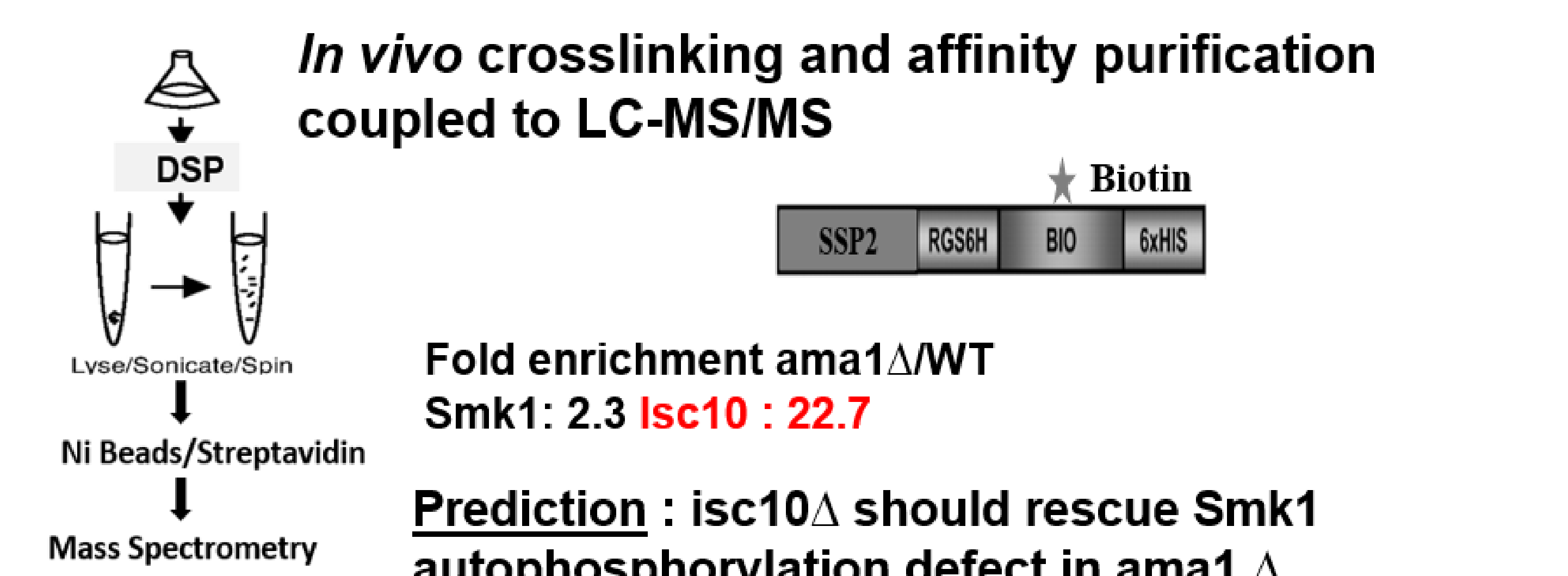
(Left): Isc10 inhibits Smk1 activation in bacterial reconstitution system. (Right): Isc10 forms complex with Smk1 and Ssp2



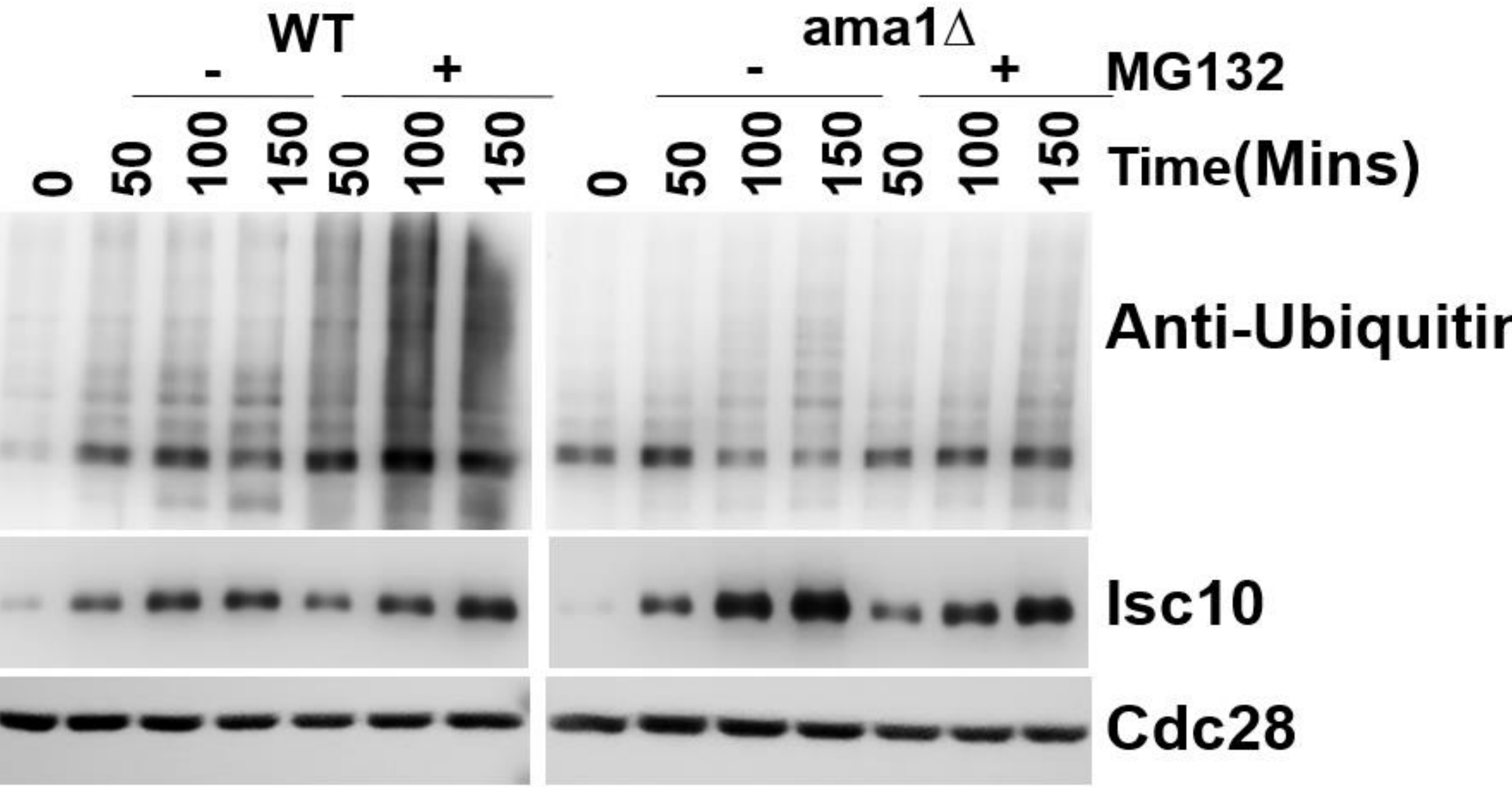
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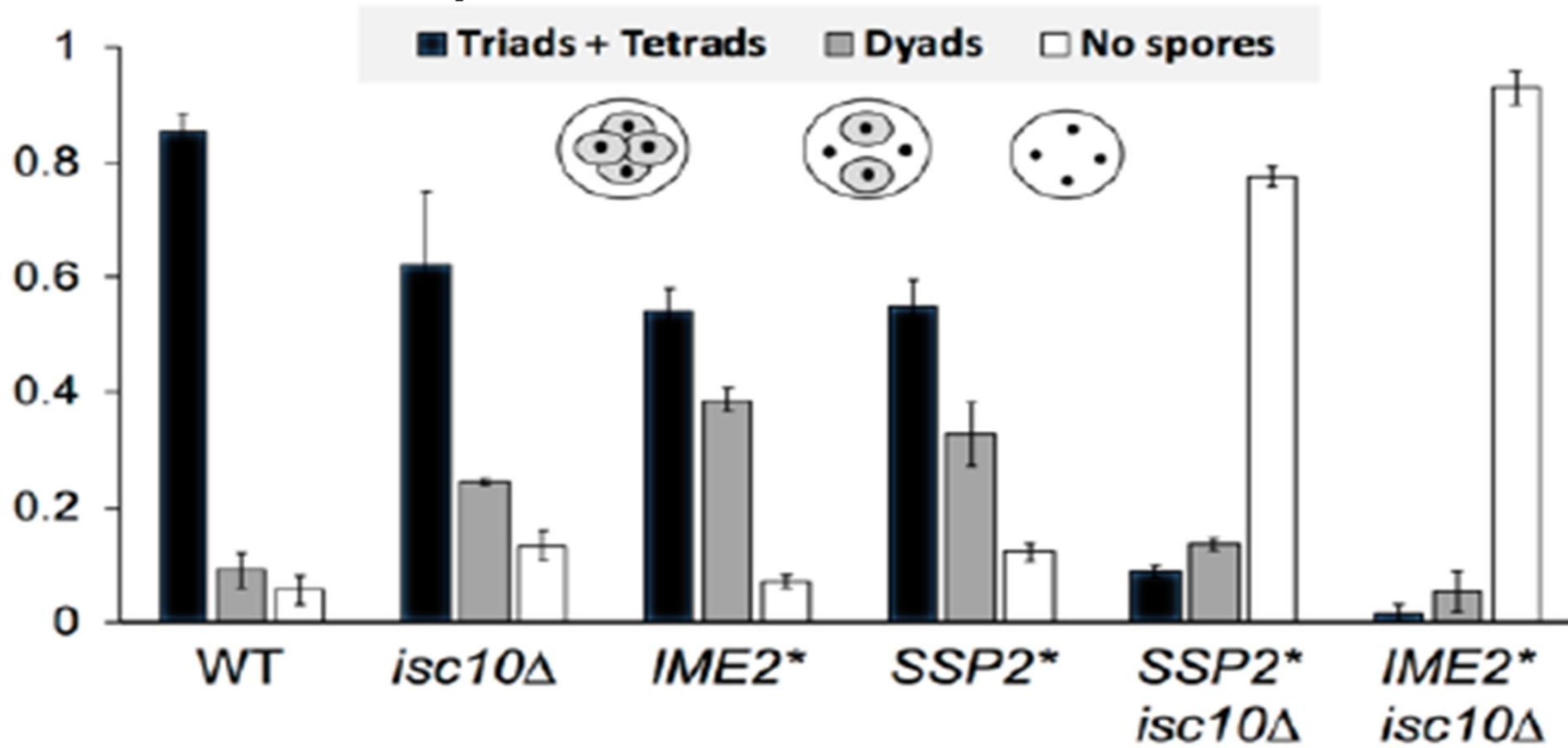
Hypothesis : APC^{Ama1} targets an inhibitor of a stable Ssp2/Smk1 complex formation and Smk1 autophosphorylation



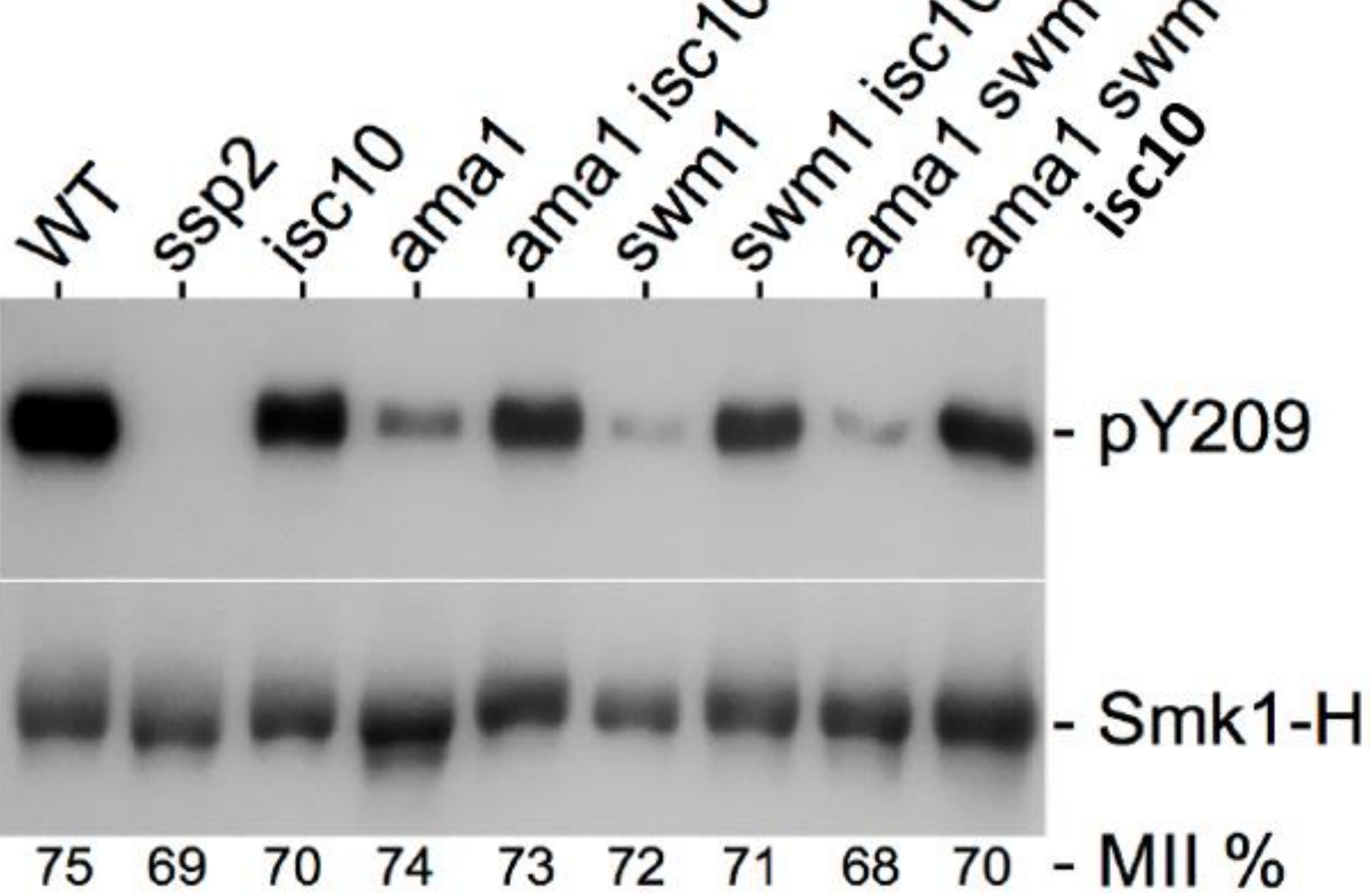
Isc10 is ubiquitylated in an Ama1 dependent manner



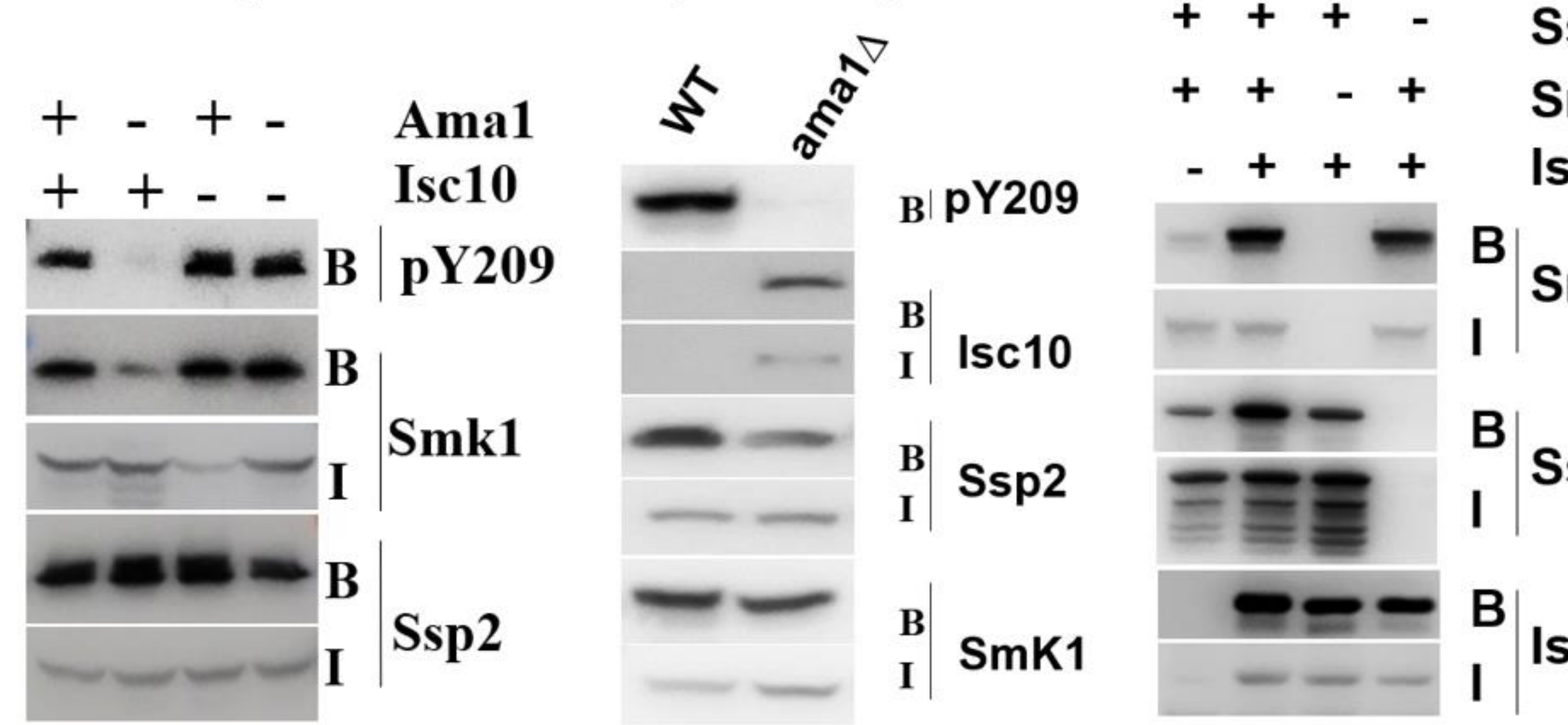
Precocious Activation of Smk1 that is uncoupled to APC leads to severe sporulation defects



isc10Δ bypasses the requirement of APC^{Ama1} Smk1 auto-phosphorylation and Ssp2/Smk1 complex formation



(Left): *isc10*Δ rescues Ssp2/Smk1 complex formation (Middle) Smk1 interacts with Isc10 and Ssp2 in *ama1*Δ cells. (Right): Isc10 can bind to Ssp2 and Smk1 independently.



Conclusions:

