Depletion of Plasma Membrane PI4P by ORP5 Requires Hydrolysis by SAC1 in Acceptor Membranes

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Summary

The authors have withdrawn their manuscript because the central conclusion is incorrect. We discovered this while revising the paper after peer review. In the original submission, we described ectopic targeting of the PI4P transfer protein, ORP5. We reported that when combined with orthogonal targeting of SAC1 to the mitochondrial outer membrane, ORP5 facilitates depletion of PM PI4P when targeted to PM-mitochondria contact sites. New experiments revealed that orthogonal targeting of SAC1 to the mitochondria alone is sufficient to deplete PM PI4P; ORP5 is not required. Thus, although the data reported in the manuscript are valid and reproducible, the conclusion was incorrect. We are currently performing additional experiments to better characterize and understand the effects of mitochondrially-targeted SAC1 on PM pools of PI4P. We will post a new manuscript detailing these findings on bioRXiv, which will be submitted for peer review at the original journal as a revision. In the meantime, we are withdrawing the preprint so as not to mislead the field with the erroneous conclusion. We sincerely apologize to anyone whose work was misdirected by our honest mistake. Therefore, the authors do not wish this work to be cited as reference for the project in its present form. If you have any questions, please contact the corresponding author.