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Title:	Identification and characterization of Rabip4' interaction partners
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Abstract:	Lysosomes are subcellular compartments that digest intracellular and extracellular material and recycle their contents to maintain cellular homeostasis. Recent studies have shown several unconventional functions of lysosomes; such as antigen presentation, tumour invasion, transportation of RNA granules, nutrient sensing and plasma membrane repair. The positioning of lysosomes determine these functions in the mammalian cell. Our lab primarily works on Arl8b, one of the small GTPases, which relocate the lysosomes towards the periphery of the cell. Previous work suggests that Arl8b interacts with a subset of RUN domain-containing proteins. Rab4 and Rab14 effector, Rabip4' is one such protein that binds to Arl8b via its RUN domain. Here we have used tandem affinity, and GST pulldown approaches to identify interaction partners for Rabip4'. To this end, we have created a stable cell line expressing Tandem tag Rabip4', and GST full-length Rabip4'. Mass spectrometry-based identification of the eluate has revealed several interesting hits. We have also characterised Rabip4' interaction with Sorting nexin proteins that localise on the early endosomes. The newly identified interaction partners from this work will be further characterised in future studies.
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