

**P017** HRS and STAM - the true ESCRT-0 complex?

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The ESCRT-0 complex is essential to multi vesicular body biogenesis in that it links the selection of monubiquitinated cargoes to recruitment of downstream components of the ESCRT machinery. Elucidating the structure of the ESCRT-0 complex is crucial to understanding its underlying mechanism of action. We have utilised the baculovirus expression system to co-express two ESCRT-0 components, Hepatocyte Growth Factor Regulated Tyrosine Kinase Substrate (HRS) and Signal Transducing Adaptor Molecule (STAM). Our initial biochemical studies suggest that, when co-expressed, HRS and STAM behave as a complex. Our findings suggest that the HRS/STAM complex behaves by size exclusion chromatography and density gradient centrifugation in a similar manner to the endogenous ESCRT-0 complex, implying that only HRS and STAM are the major components of ESCRT-0. We plan to perform further biophysical characterization of the complex to ascertain its accurate molecular weight and subunit composition, and to gain information about its shape.