



James A. McNew, Ph.D.  
Professor

February 20, 2019

Stephanie R. Weldon, PhD  
Science Editor  
JoVE  
1 Alewife Center, Suite 200  
Cambridge, MA, 02140

Dear Dr. Weldon,

Please find attached our manuscript entitled “Detergent-Assisted Reconstitution of Recombinant *Drosophila* Atlastin into Liposomes for Lipid-Mixing Assays”, which we submit for consideration for publication in the Journal of Visualized Experiments. Atlastins are conserved endoplasmic reticulum GTPases that mediate homotypic fusion. In this article we describe in detail a protocol for purifying, reconstituting, and measuring fusion activity of recombinant *Drosophila* atlastin. We also describe quality control measures for reconstituted proteoliposomes, including, analysis of the protein orientation by protease cleaving, and quantifying reconstitution efficiency by floatation assays. This protocol can be extended to other membrane and fusion proteins making it an accessible system for studying protein-lipid interactions and fusion.

We report no competing interests as described in the instructions to authors.

Thank you for your consideration.

Potential reviewers could include experts in membrane biochemistry:

Fabienne Paumet

[Fabienne.Paumet@jefferson.edu](mailto:Fabienne.Paumet@jefferson.edu)

Thomas Weber

[thomas.weber@mssm.edu](mailto:thomas.weber@mssm.edu)

Patricia Bassereau

[patricia.bassereau@curie.fr](mailto:patricia.bassereau@curie.fr)

Regards,

A handwritten signature in black ink that reads 'James A. McNew'.

James A. McNew