Authentication of Key Biological and/or Chemical Resources

This proposal utilizes several biological and chemical resources, including fluorescent dyes, drugs, and chemicals for *ex vivo* or cell culture studies. All the materials are standard in our laboratories or have been employed by others in peer-reviewed publications. For all new materials/agents, we will authenticate before use.

Chemicals/Compounds/Molecular Reagents. Unless expressly noted within the proposal, all chemicals and compounds/molecular reagents (e.g., secondary antibodies) are purchased at their highest purity from reputable vendors (Sigma, R&D, Cell Signaling, Invitrogen, Thermo scientific, Cayman Chemicals, Dojindo). Chemical solubilization will be performed as per the specific product sheet. All reagents will be stored as recommended and utilized by the expiration date. For experiments involving enzymes, control experiments will be performed in parallel to ensure biological activity and/or appropriate pharmacological outcomes.