Type 2 diabetes affects millions of people throughout the United States, yet available treatments are expensive and complicated. A previous Genome-Wide Associate Study identified associations between genetic variants in and near *SGSM2* and altered plasma levels of insulin molecules in non-diabetic individuals. SGSM2 is a putative Rab GTPase Activating Protein without a known role in the insulin processing and secretion pathway. To elucidate the role of SGSM2 in this pathway, we attempted to identify interactors of SGSM2. To do this, MIN6 murine pancreatic beta cells overexpressing SGSM2-6xHis underwent a glucose challenge to stimulate insulin secretion. We then isolated SGSM2 and any potential interactors by pulldown with nickel-cobalt beads. To optimize the retention of SGSM2 and decrease the non-specific interactions, we tested three different bead-lysate incubation times and three different wash conditions. We determined that a 5-minute incubation time and a wash protocol consisting of one wash of NP-40 lysis buffer, three PBS washes, and three ammonium bicarbonate washes were most effective. Proteins isolated with these conditions have been submitted for Affinity-Purification Mass Spectrometry for identification. Further information about SGSM2's interactors will provide insight into the role of SGSM2 in the insulin processing and secretion pathway and enable potential development of novel therapeutic approaches.