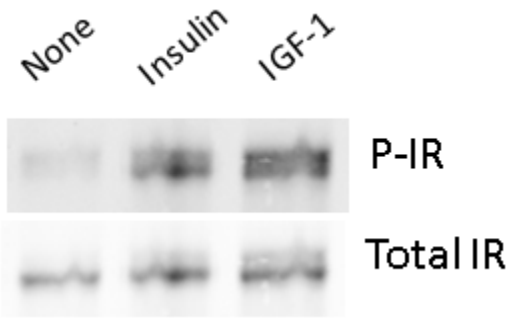
Supplemental Figure 1: Comparison of Insulin- vs. IGF-induced IR Phosphorylation in Isolated Synaptosomes. Representative Western blot detecting phosphorylated IR in isolated synaptosomes stimulated with insulin or insulin-like growth factor 1 (IGF-1). Synaptosomes were prepared from frozen mouse brain and stimulated with 3µM insulin or IGF-1 for 30 min at 37°C with 8mM ATP.



Supplemental Figure 2: Preparation of Synaptosomes Using the SynPER Reagent. A) Western blot detecting PSD95 in total homogenates and synaptosomes isolated using the SynPER reagent protocol. Enrichment of the post-synaptic marker PSD95 indicates successful synaptosomal isolation. B) Representative Western blot detecting insulin-stimulated IR phosphorylation in synaptosomes isolated using the SynPER reagent protocol. Synaptosomes were isolated from frozen rat brain and stimulated with 0.333 units/mL of insulin for 15 min at 37°C with 8mM ATP. C) Representative transmission electron microscopy image (3,000 x) showing synaptosomes isolated using the SynPER reagent protocol. Blow-out insert images illustrate examples of synaptosomes characterized by the presence of the post-synaptic density area (arrows).