

## **AUTHENTICATION OF KEY BIOLOGICAL AND/OR CHEMICAL RESOURCES**

All the biological and chemical resources needed to complete the proposed research are available from commercial vendors, and are supported by validated data of specificity and purity published in peer-reviewed journals. Antibodies will be selected based on 1) published reports of specificity using positive and negative control cells and/or tissue (e.g. knockout mice); and 2) validation data from the commercial vendor. Mice will be acquired from commercial sources with internal quality control resources to guarantee accurate genotyping and with breeding standard to insure the absence of genetic drift (e.g. The Jackson Laboratory, Mutant Mouse Regional Resource Center). Mice from commercial sources will be genotyped before use using primers obtained from commercial sources meeting common, high purity standards. Mice obtained from collaborators will be outbred to their source strain to ensure genetic integrity and genotyping confirmed in each animal before use. Records of animal genotyping will be maintained permanently within the lab. Cre strain specificity will be evaluated using reporter mice and compared to public or commercial data before use. cDNA plasmids, sh/siRNA, and antisense oligonucleotides obtained from commercial sources (e.g. Addgene) or collaborators will be sequenced before use, and any errors in sequence corrected by site-directed mutagenesis.