Sample collection and processing for BSR-Seq and gBSA mapping experiments

(Updated 12/13/2018)

- The mapping resolution of BSR-Seq and gBSA experiments relative to a physical map depends on the rate of recombination/Mb. Hence, genes located in chromosomal regions with low rates of recombination per Mb may particularly benefit from post-BSR-Seq/gBSA follow-up fine-scale genetic mapping experiments, e.g., genotyping individual (i.e., non-pooled) plants with KASP markers developed based on SNPs that are located within the mapping interval as defined by the BSR-Seq experiment. It is therefore prudent to save tissue (or DNA) samples from non-pooled individuals while creating the mapping pools. This issue does not affect mapping resolution relative to a genetic map.

- Samples should be shipped in carefully sealed tubes

- Collecting & Processing samples for BSR-Seq and gBSA mapping experiments:
    - A small piece of tissue should be collected from each member of each pool.
    - After pooling tissue samples, flash freeze in liquid nitrogen (keeping pools separate) and then finely grind tissue (again keeping pools separate). It's important to freeze samples ASAP after harvest and to keep tissues frozen while grinding.
    - After grinding tissue samples, make two aliquots of tissue powder from each pool.
    - Keep one aliquot in a your freezer as a back-up in case of shipping disasters and send the other aliquot frozen on dry ice to Data2Bio via overnight delivery.
    - If possible please send ~1g of frozen ground tissue for each pool. Please contact Ms. Lisa Coffey re: shipping questions (lmcoffey@data2bio.com)
    - See DNA-Seq and RNA-Seq FAQs for important information about DNA and RNA quantity, quality and shipping.

Additional Notes:

Some projects rely on data provided by the client rather than (or in addition to) data generated by Data2Bio. Client-supplied data are expected to arrive at Data2Bio at project initiation (e.g., when samples are provided). Delays in supplying such data are likely to delay project completion.