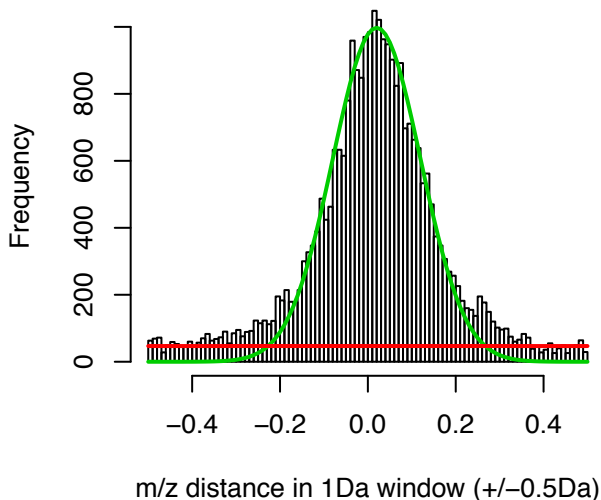
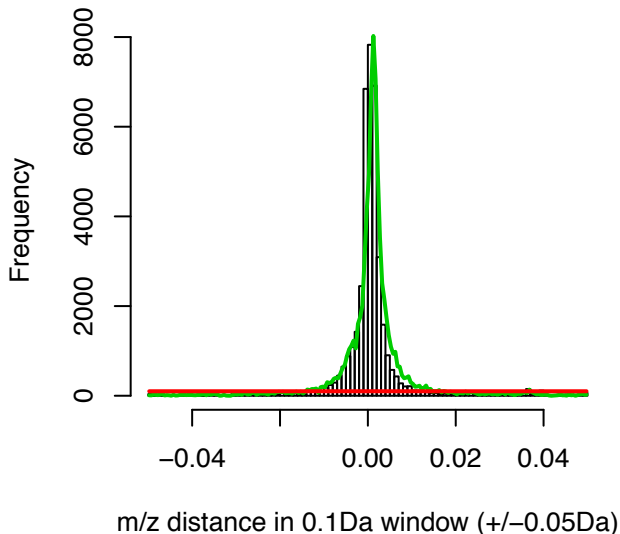


CID – Synthetic Library



HCD – Synthetic Library



Supplementary Figure 1. The distribution of m/z distances (mass accuracies) between theoretical and observed peaks in appropriately sized error tolerance windows. For low mass accuracy data, ± 0.25 Da window covers the mixture of a unimodal distribution (signal peaks) and the flat distribution (noise peaks). For high mass accuracy data, ± 0.025 Da window covers the range. LuciPHOr attempts to learn these distributions from each dataset, with a user-defined mass tolerance window. Green and red lines indicate the fitted densities for matched and random peaks respectively.