I can join the general comments by referee 1. My main concern is the one-bond deuterium isotope effect on $^{15}$N chemical shifts of Lys66. This is probably not fully protonated judged from the isotope effects (see below). Most interactions will lead to a decrease compared to the free lysines (Williamson, Chem. Commun. 49, 9824, 2013). On the other hand it is too large to be $-ND_2$ as the effects of amines are of the order or 0.7 ppm (Lycka, 23, 973, 1985). As the experiments are done a a Shigimi tube and from what I can tell no special precautions are taken to take into account the difference in $pK_a$ values in H$_2$O and D$_2$O, one could fear that part of the large effect is caused by a change in the equilibrium due to deuteriation, as the pH is in the vicinity of the $pK_a$ value. Therefore, I strongly recommend that the measurements are repeated in a single tube and with varying amounts of D$_2$O to obtain the isotope effects.