



**Fig. S4:** RII mutants express to similar levels as wildtype. A) Size exclusion chromatography monitored at 280 nm absorbance traces for all RII mutant constructs and wildtype. Residues mutated are listed in table S3. B) Coomassie stained poly-acrylamide gel for all RII mutant constructs and wildtype, residues mutated listed in Table S3.