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Appendix

GAATTCAGTACTAGTAGGAATGATTTTTAATTATGAAAATATATACATAAATTATATAAATAATATAAACACATAAACACATATG
 ATTACAGCTATATTAATTAATTTTCATACATCATCATGATTTTGTAAAAGCATAACCTAGTACTCAAGTTACTTTTTTGAA
 ATTATGTGCATGCCTTAATTAAGAAGCTCCAATCAATGGAAAAATCAAAAAAGAAATTACACAAAAAGTTTTACATAACCT
 AAATATTAATTTACAACATGGAGACTTATTGAAAAAATATTAATTTGTTTTATAACACAGAAAAATGACAGGAACAGATT
 ATTATAAAAAATTTAGAGAAACAAAAGTTACTACGAGGAATTAGACTTTTAGACATTGCAGAAGAGGATGTAATTTCTCTTACT
 AAAAATTTAAGGAAGAAATTAAGCATGGTAAACTTGTAACTACCCGTACGACGTCCCGACTACGCTGGCTATCCCTATGA
 TGTGCCCGATTATGCGTATCCTTACGATGTTCCAGATTATGCCGCTAGCTAATGGACATTTTATAAATCACAATGGATATTTT
 ATAAATCACAATGGAGACTTTATAAATAACATTCATATAGAACACGACAAAAAAAAAAAAAAAAAACATATTAATAAACG
 AAAAAAAAAATATAAACATAAAAAACAATAAGAGGAAATCAAAACAAGGAAAAATATTTCTTTTACATATATAGTATGTTATA
 AAAATTAGTATTTAACAAAATATGTTTTATTAACATATCGATTATATATTCATTTTCAAAATTAATATATGTCTGAACATATA
 TATATATATATACAAATTCATTCTTCTGTTGTTTATAAAAAATTATACTCTAGTGAAATATAAAGGAATTTATACTTAAGCC
 ATGG

Figure A1: sequence of synthetic gene. As ordered from Geneart including wildtype coding region, mutated gRNA, recodonised 3'end, 3xHA tag, 3'utr

Primer		Sequence
Primer 1 (P1)	211	GAT GTC ATA TCA CTA ACC AAA AAT TTT
Primer 2 (P2)	203	ATT TTC CCT TGT TTT GAT TTC CTC T
Primer 3 (P3)	153	CGAGGAGTTGCACAAGAACA
Primer 4 (P4)	4	GGCATAATCTGGAACATCGTAA
Primer 5 (P5)	133	GCA TAC CTA GTA CTC AAG TTT AC
3'PKG BclI		GAAAGAGAAATAACAGCAGAAAATGATCATCCC
PKG CR		ATCTTCTGCATAAGTTTCAC

gRNA oligo sequences		
209	PDEdelta 3' new gRNA F	TAAGTATATAATATT ACGGTTGTTGGACATAGCTGGTTTTAGAGCTAGAA
210	PDEdelta 3' new gRNA R	TTCTAGCTCTAAAAC CAGCTATGTCCAACAACCGTAATATTATATACTTA

Figure A2: Primer sequences for integration PCR and gRNA oligo sequences

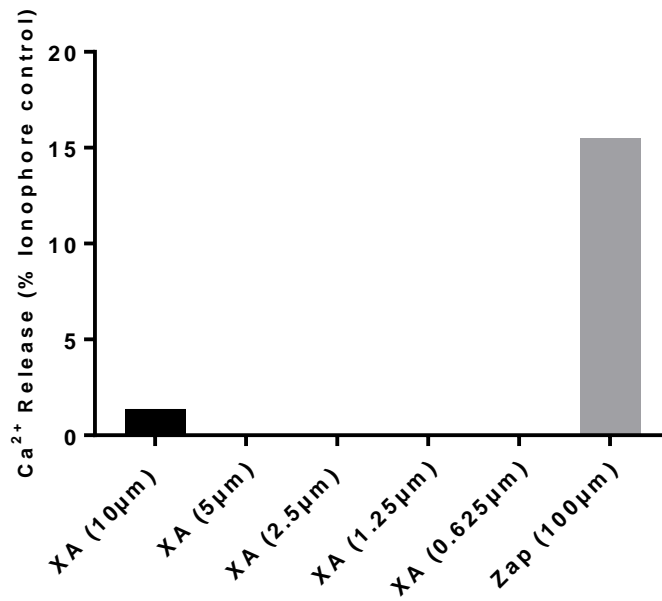


Figure A3: XA-induced Ca²⁺ release in *P. falciparum* Schizonts.

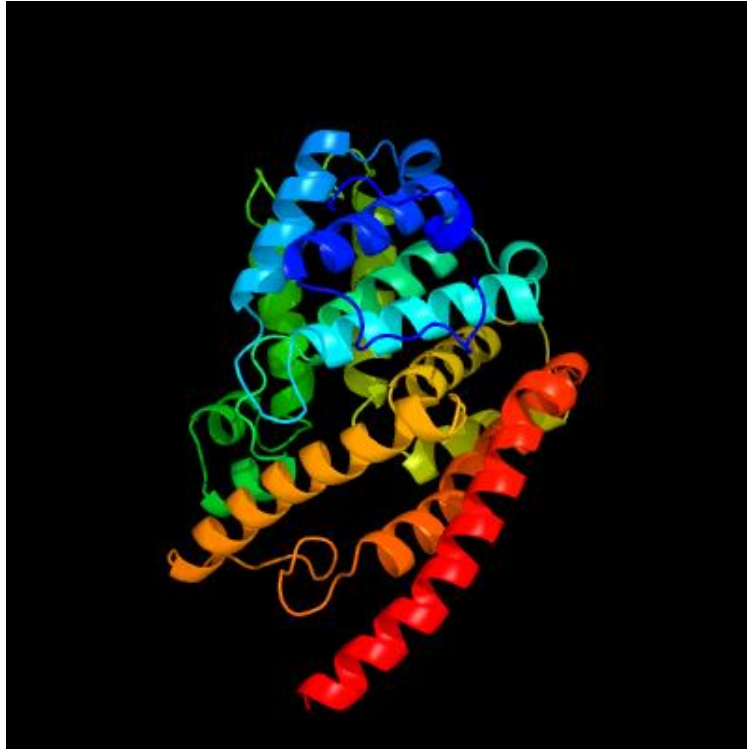


Figure A4: Predicted protein structure of *PfPDEδ*. Generated using Phyre 2 from a sequence alignment with HsPDE9A