

Supplementary Table S1

Oligonucleotides primers used in this study:

Oligonucleotide name	Oligonucleotide Forward sequence	Oligonucleotide Reverse sequence	Annealing temperature
PRPH2	AACAACGGTTTTTCGGGACTGG	CGCAGCCCAATTGTAATGGTC	56 °C
GRK1	AGCTGTATGCCTGCAAGAAGC	TGGAGTTCAGTTTGGTGACGG	56 °C
MERTK	GAATGAAATAGGCTGGTCTGC	GGAGTCAACAGTAGAAGAGAG	56 °C
hybrid RDHBLO	GGAGAACTTCAACCAGGCACT	TTCTCCAGACTCTCCAGGTTG	56 °C
KIAA1549	TCCCTCAGATGCTGACTCTAC	GTGGGATCACTTTCCTCCAG	56 °C
MAK	CAGAGGATCCACTTAGCACCT	CCATGATTGCATCCCTGCACT	56 °C
PLA2G5	TGCCCAAGGAAGTTGCTCATG	TTGTGTTGCAATGTCTCTCCC	56 °C

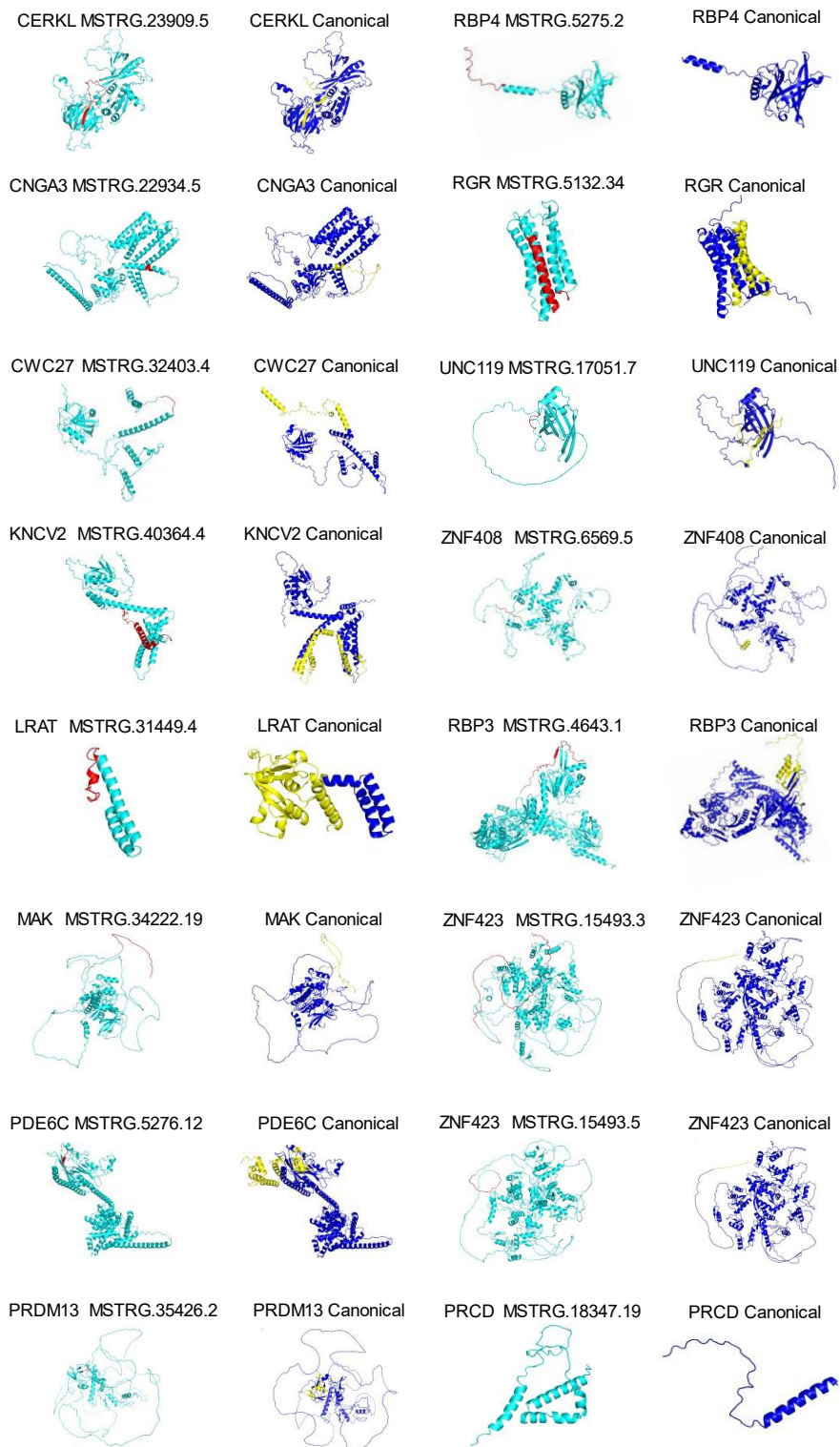
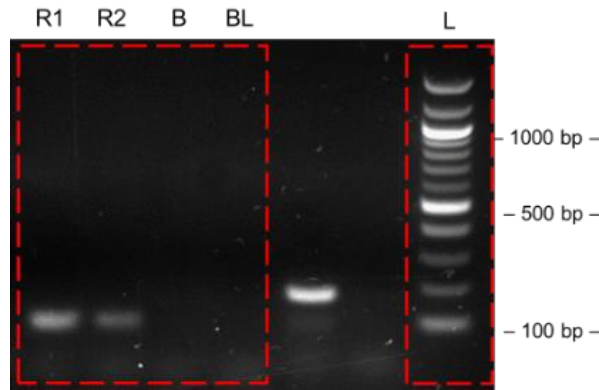


Figure S1. Predicted 3D protein structures encoded by the novel HEITs (light blue) compared with their corresponding canonical forms (dark blue). Protein modelling was carried out with AlphaFold2 and ColabFold. The distinguishing features between the novel and the canonical proteins are highlighted in red and yellow, respectively.



Source data

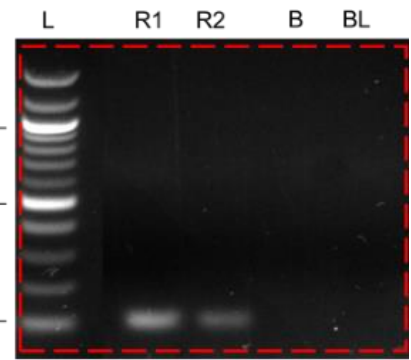
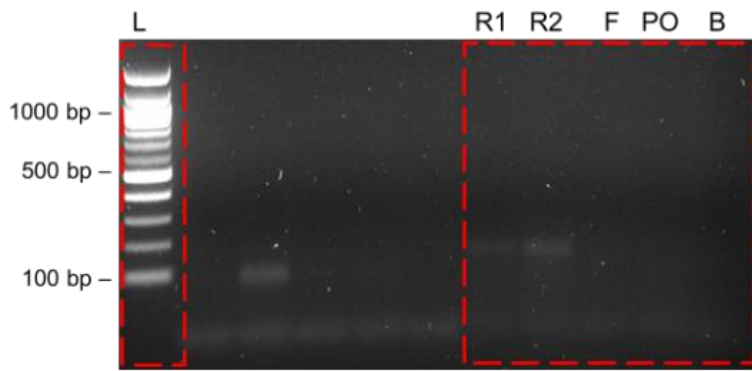


Fig 3b - *GRK1*



Source data

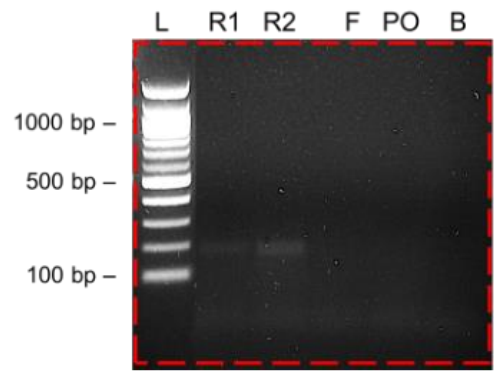


Fig 3d - *KIAA1549*

Figure S2. Source data for Figure 3.