

Article

Supplementary Materials: A Novel Missense Mutation at EDA2R Gene Identified in a Case Study Associated with Hypohidrotic Ectodermal Dysplasia

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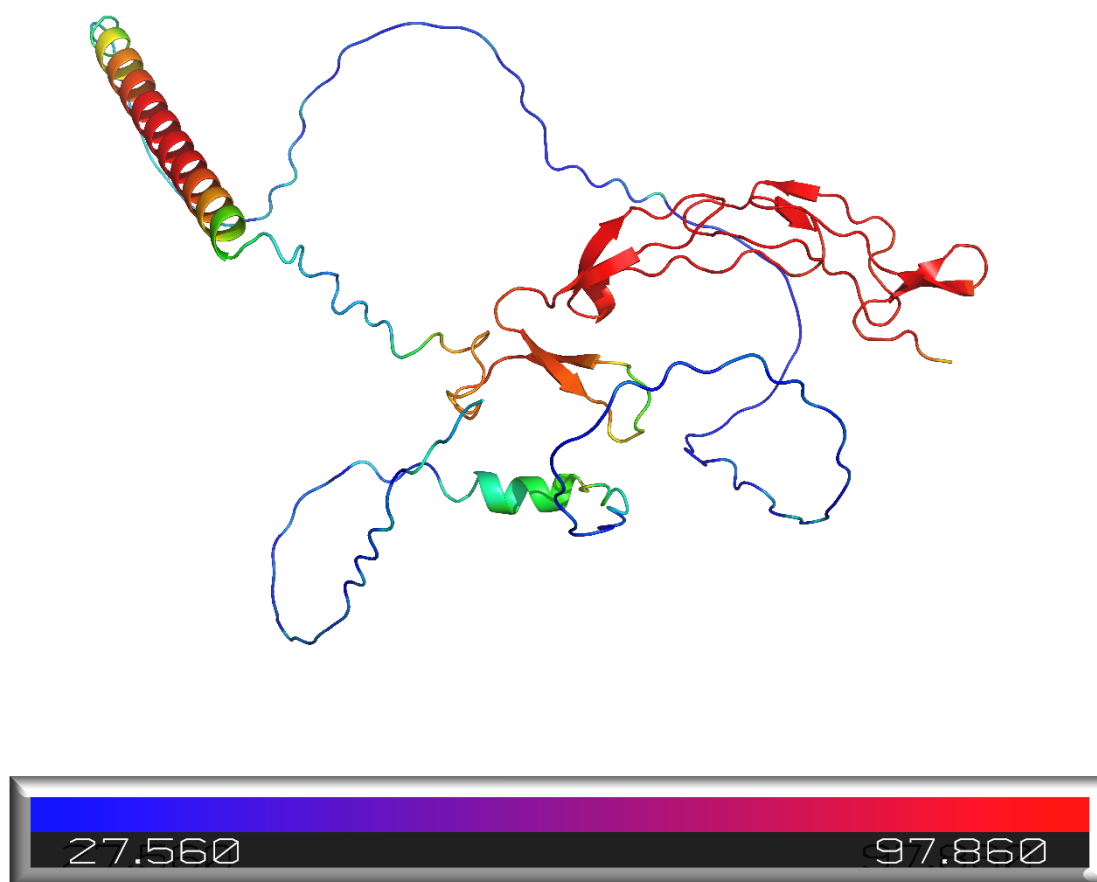


Figure S1. Conformation of EDA2R predicted by alphafold2.



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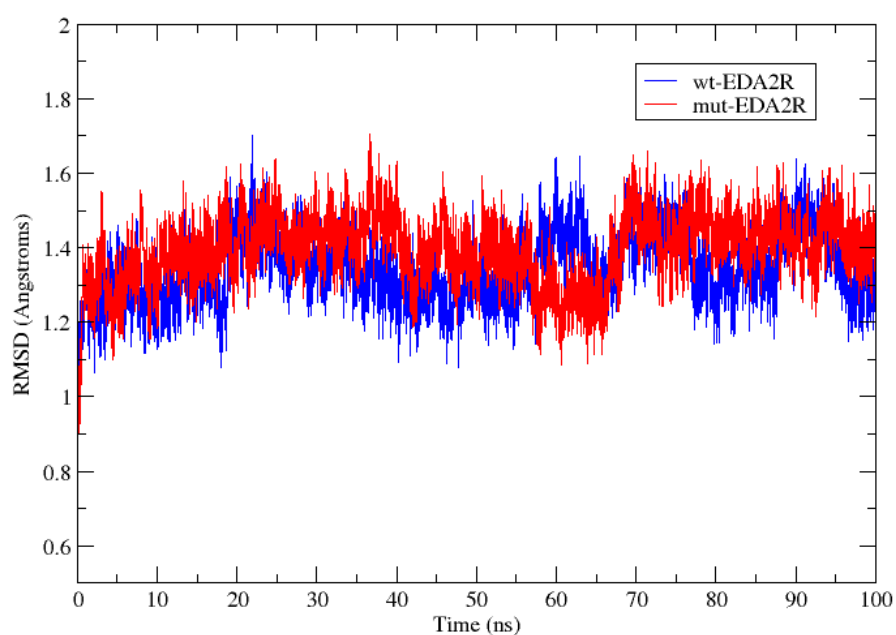


Figure S2. The RMSD results for wild-type and mutant EDA2R within 100 ns relaxation.

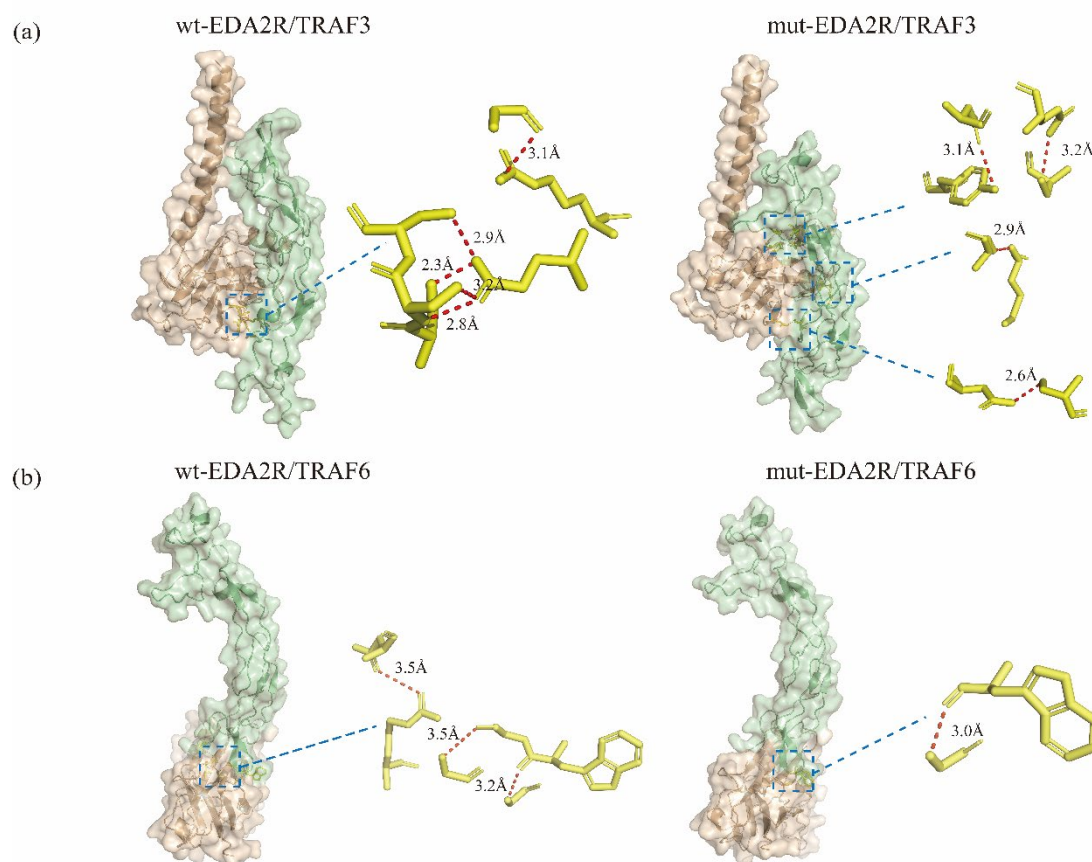


Figure S3. The predicted structure of EDA2R/TRAF complexes. (a) The structure of wild-type and mutant EDA2R/TRAF3 complexes. Hydrogen bonding (in angstroms) between complexes was demonstrated with stick models. (b) The structure of wild-type and mutant EDA2R/TRAF6 complexes.

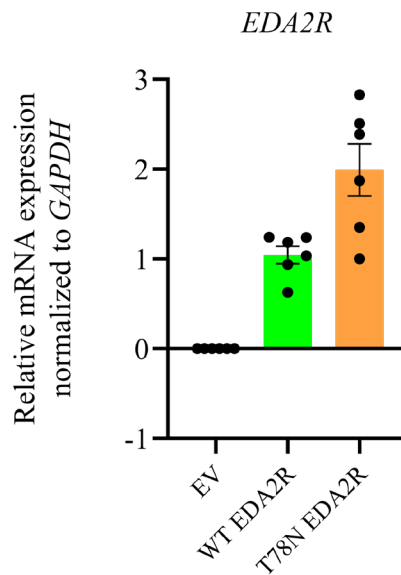


Figure S4. Quantitative PCR (qPCR) Analysis of *EDA2R* mRNA Expression in HEK-293T Cells Transfected with Wild-Type *EDA2R*, Mutant *EDA2R*, or Empty Vector (EV) (n = 6). Data are presented as mean \pm SEM.

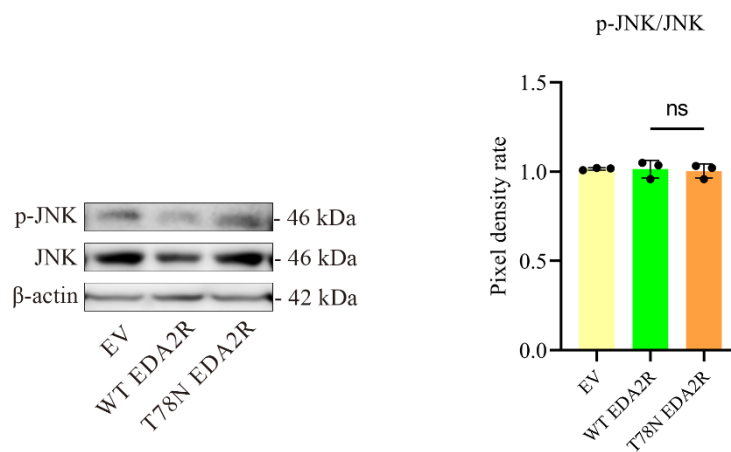


Figure S5. Western blot analysis was performed to measure the expression of the JNK signaling pathway (n = 3). Data are presented as mean \pm SEM.

Table S4. Binding free energy results by MM-GBSA (kcal/mol).

	Energy Component	Average	Std. Dev.	Std. Err. of Mean
wt-EDA2R/ EDAA2	VDWAALS	−67.5949	7.7753	0.4908
	EEL	−11.6173	31.5082	1.9888
	EGB	52.8005	29.7414	1.8773
	ESURF	−8.3911	0.9764	0.0616
	DELTA G gas	−79.2122	36.5513	2.3071
	DELTA G solv	44.4093	28.9886	1.8297
	DELTA TOTAL	−34.8028	9.0063	0.5685
	Energy Component	Average	Std. Dev.	Std. Err. of Mean
mut-EDA2R/ EDAA2	VDWAALS	−71.8812	5.1526	0.3252
	EEL	144.3354	45.2927	2.8588
	EGB	−86.3921	43.2044	2.7270
	ESURF	−9.3529	0.7463	0.0471
	DELTA G gas	72.4543	45.7593	2.8883
	DELTA G solv	−95.7450	43.0220	2.7155
	DELTA TOTAL	−23.2907	4.9650	0.3134