

Supplementary Table S1. List of rare (MAF < 0,001% according to the gnomAD database) single nucleotide variants identified in the reported family.

| Position (hg38) | Gene | Transcript | cDNA change | Amino acid change | MAF | II-2 | III-1 | III-2 | IV-1 | Pathogenicity class | ACMG criteria* |
|-----------------|--------------|----------------|-------------|-------------------|-----------|------|-------|-------|------|---------------------|--------------------|
| chr2:73448907 | <i>ALMS1</i> | NM_015120.4 | c.2380G>T | p.Ala794Ser | NA | 0/0 | 0/0 | 0/1 | 0/1 | LB | PM2, BP4, BS4 |
| chr5:128336003 | <i>FBN2</i> | NM_001999.4 | c.3709C>T | p.Arg1237Cys | 0,0000197 | 0/0 | 0/0 | 0/1 | 0/1 | VUS | PM2, PP3, BS4 |
| chr8:143932128 | <i>PLEC</i> | NM_201384.3 | c.2082+2T>G | | NA | 0/0 | 0/0 | 0/1 | 0/0 | VUS | PM2, BS4 |
| chr12:21925942 | <i>ABCC9</i> | NM_020297.4 | c.406G>A | p.Ala136Thr | NA | 0/0 | 0/1 | 0/1 | 0/0 | VUS | PM2, BP4 |
| chr18:36652930 | <i>FHOD3</i> | NM_001281740.3 | c.1646+1G>A | | NA | 0/0 | 0/1 | 0/1 | 0/0 | LP | PM2, PM4, PM1, PP5 |

* Abbreviations for criteria are provided in accordance with Richards et al. [16] and mean the following: PM1, located in a mutational hot spot and/or specific functional domain; PM2, absent or met at extremely low frequency in large populational databases; PM4, protein length changes due to in-frame deletions/insertions; PP3, multiple lines of *in silico* evidence indicate deleteriousness; PP5, reported as pathogenic by an independent reputable source; BS4, lack of cosegregation with the disease in the family; BP4, multiple lines of *in silico* evidence show absence of deleterious effects.

LB, likely benign; LP, likely pathogenic; VUS, variant of uncertain significance. 0/0 indicates the wildtype genotype, 0/1 indicates the presence of the variant in heterozygous state.