

**Supplementary Table S1**

Gene	#patients	Phenotype
<b><i>PCDH19</i></b>	8 patients	Typical <i>PCDH19</i> -DEE with clusters of FS, focal S, hypomotor and affective seizures
<b><i>CDKL5</i></b>	3 patients harboring <i>de novo</i> variants  1 patient with Xp22 deletion (13.804 Kb) including <i>CDKL5</i>	Tonic-spasms during sleep  Drug-resistant epileptic encephalopathy (prevalent tonic seizures)
<b><i>MECP2</i></b>	72 patients	Both focal and generalized epilepsy (15/72 drug-resistant; about 21%)
<b><i>MECP2 duplication</i></b>	2 males and 1 female	2 (1F, 1M) Lennox Gastaut Syndrome  1 M with Lennox-like phenotype (late-onset drug-resistant epileptic spasms)
<b><i>FLNA</i></b>	2 patients	Focal epilepsy, drug responsive
<b><i>IQSEC2</i></b>	1 patient	Generalized epilepsy (tonic-clonic and atonic seizures)
<b><i>NEXMIF</i></b>	2 patients	Epilepsy with eyelid myoclonia and Intellectual disability  Focal epilepsy with ID

Legend: DEE: developmental and epileptic encephalopathy; F: female; FS: febrile seizures; ID: intellectual disability; M: male.