

The childhood epileptic encephalopathy (CHE) panel:

Consists of 110 genes previously described as being involved in the development of epilepsy with early onset, epileptic encephalopathy or developmental epileptic encephalopathy.

A significant number of the epilepsies have a monogenic cause, such as channelopathies, and a genetic test may help establish the etiology and mechanism of the disease action, and in certain instances allow for more targeted treatment. The CHE110 test is relevant in cases where epilepsy is the primary symptom.

Table showing the 110 genes in the CHE panel:

Gene	Reference_NM	OMIM_ID	Gene	Reference_NM	OMIM_ID
ADSL	NM_000026.3	608222	HCN1	NM_021072.3	602780
ALDH7A1	NM_001182.4	107323	HNRNP U	NM_031844.2	602869
ALG13	NM_001099922.2	300776	HUWE1	NM_031407.6	300697
ARHGEF9	NM_015185.2	300429	IQSEC2	NM_001111112.5.2	300522
ATP1A2	NM_000702.3	182340	KCNA2	NM_004974.3	176262
ATP1A3	NM_152296.4	182350	KCNB1	NM_004975.3	600397
ATRX	NM_000489.4	300032	KCND2	NM_012281.2	605410
CACNA1A	NM_001127221.1	601011	KCNH5	NM_139318.4	605716
CACNA1D	NM_000720.3	114206	KCNH8	NM_144633.2	608260
CACNA1E	NM_000721.3	601013	KCNMA1	NM_002247.3	600150
CACNB4	NM_000726.4	601949	KCNQ2	NM_172107.3	602235
CDKL5	NM_003159.2	300203	KCNQ3	NM_004519.3	602232
CHD2	NM_001271.3	602119	KCNQ5	NM_001160133.1	607357
CHRNA2	NM_000742.3	118502	KCNT1	NM_020822.2	608167
CHRNA4	NM_000744.6	118504	KCNT2	NM_198503.3	610044
CHRNA2	NM_000748.2	118507	KCTD7	NM_153033.4	611725

CNKS2	NM_014927.4	300724
CUX2	NM_015268.3	610648
DEPDC5	NM_00124289 6.1	614191
DNM1	NM_004408.3	602377
DOCK3	NM_004947.4	603123
DOCK7	NM_00127199 9.1	615730
EEF1A2	NM_001958.3	602959
FOXG1	NM_005249.4	164874
GABBR1	NM_001470.3	603540
GABBR2	NM_005458.7	607340
GABRA1	NM_000806.5	137160
GABRA3	NM_000808.3	305660
GABRB3	NM_000814.5	137192
GABRD	NM_000815.4	137163
GABRG2	NM_000816.3	137164
GAMT	NM_000156.5	601240
GATM	NM_001482.2	602360
GNAO1	NM_020988.2	139311
GRIN1	NM_007327.3	138249
GRIN2A	NM_000833.4	138253
GRIN2B	NM_000834.3	138252
GRIN3A	NM_133445.2	606650
GRIN3B	NM_138690.2	606651
PURA	NM_005859.4	600473
RELN	NM_005045.3	600514
SCN1A	NM_00116596 3.1	182389
SCN1B	NM_001037.4	600235
SCN2A	NM_021007.2	182390

KIAA202 2	NM_00100853 7.2	300524
LGI1	NM_005097.3	604619
MECP2	NM_004992.3	300005
MEF2C	NM_002397.4	600662
MTOR	NM_004958.3	601231
NPRL2	NM_006545.4	607072
NPRL3	NM_00107735 0.2	600928
NRXN1	NM_00113565 9.2	600565
PCDH19	NM_00118488 0.1	300460
PGAP1	NM_024989.3	611655
PGAP2	NM_00125624 0.1	615187
PIGA	NM_002641.3	311770
PIGN	NM_176787.4	606097
PIGO	NM_032634.3	614730
PIGQ	NM_004204.3	605754
PIGT	NM_015937.5	610272
PIGV	NM_017837.3	610274
PIGX	NM_00116630 4.1	610276
PLCB1	NM_015192.3	607120
PNKP	NM_007254.3	605610
PNPO	NM_018129.3	603287
POLG	NM_002693.2	174763
PRRT2	NM_145239.2	614386
SLC9A6	NM_006359.2	300231
SMARC A2	NM_003070.4	600014
SMC1A	NM_006306.3	300040
SPTAN1	NM_00113043 8.2	182810
ST3GAL 3	NM_006279.3	606494

SCN3A	NM_006922.3	182391
SCN8A	NM_014191.3	600702
SLC12A 5	NM_020708.4	606726
SLC13A 5	NM_177550.4	608305
SLC1A2	NM_004171.3	600300
SLC25A 22	NM_024698.5	609302
SLC2A1	NM_006516.2	138140
SLC35A 2	NM_00104249 8.2	314375
SLC35A 3	NM_012243.2	605632
SLC6A1	NM_003042.3	137165
SLC6A8	NM_005629.3	300036

STX1B	NM_052874.4	601485
STXBP1	NM_003165.3	602926
SYNGAP 1	NM_006772.2	603384
SYT1	NM_005639.2	185605
TBC1D2 4	NM_00119910 7.1	613577
TCF4	NM_00108396 2.1	602272
UBE3A	NM_130838.1	601623
WDR45	NM_007075.3	300526
WWOX	NM_016373.3	605131
YWHAG	NM_012479.3	605356
ZDHHC9	NM_016032.3	300646