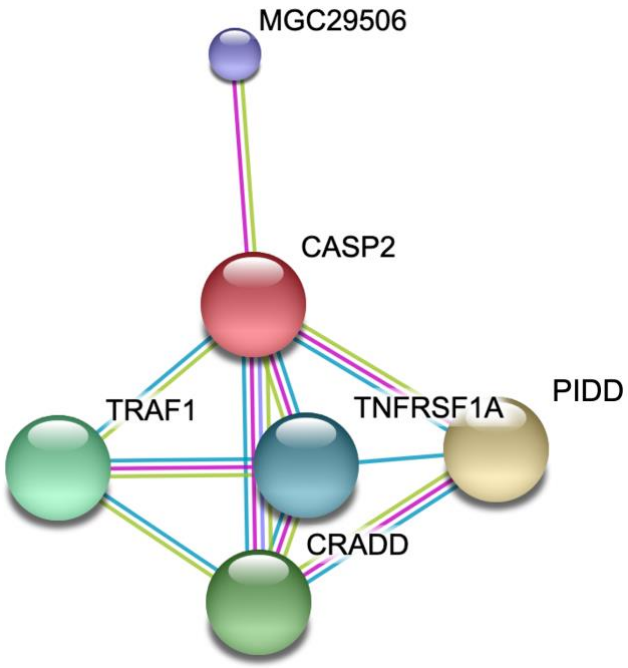


Fig. S1: Representation of functional association network of CASP2.

(https://string-db.org/,accessed March 2023)

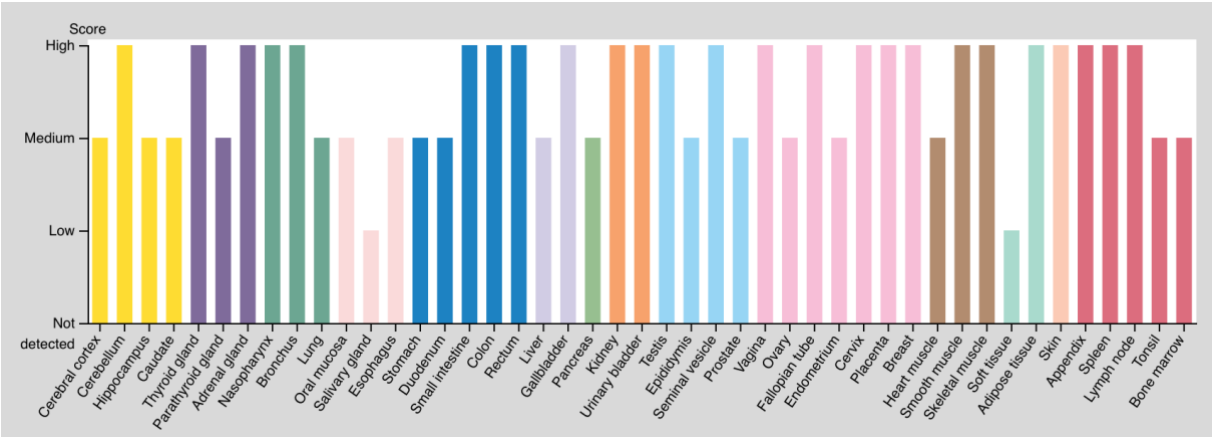


Fig. S2: CASP2 protein expression in various tissues. Protein Atlas search shows medium to high levels of CASP2 in various organs of the human body, including brain regions

(https://www.proteinatlas.org/, accessed March 2023).

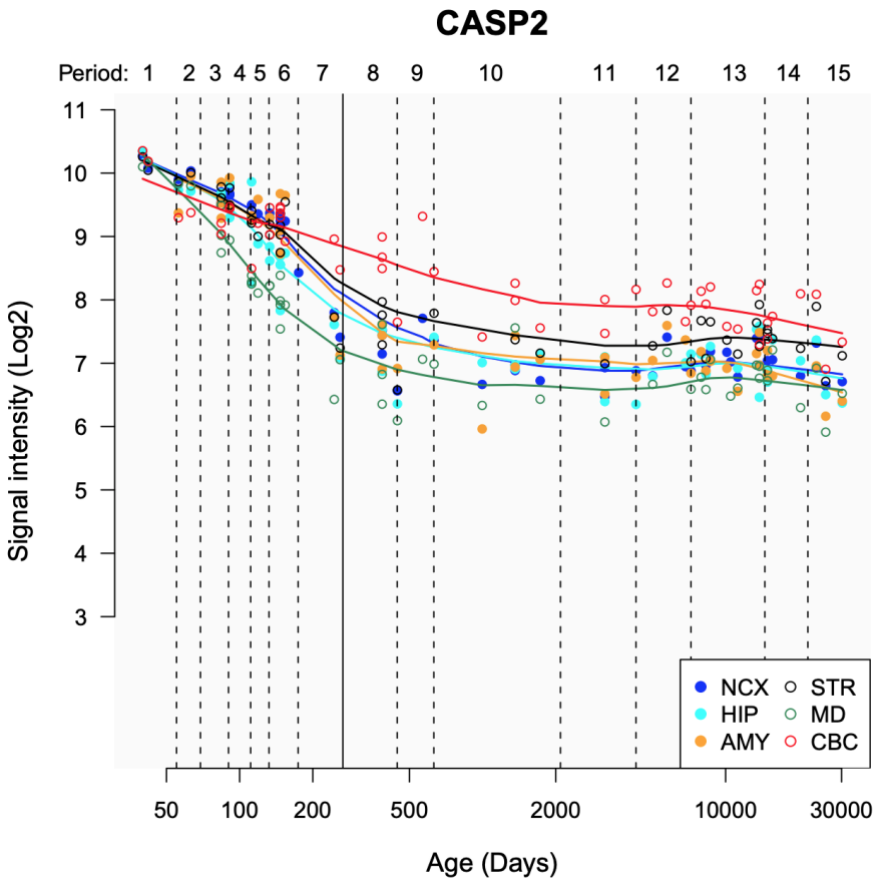


Fig. S3: Representation of dynamic CASP2 expression along entire developmental and adulthood period in the brain. The cerebellar cortex (CBC), mediodorsal nucleus of the thalamus (MD), striatum (STR), amygdala (AMY), hippocampus (HIP) and eleven areas of neocortex (NCX) are shown. Graph generated using Human Brain Transcriptome (https://hbatlas.org/pages/hbtd) (accessed March 2023).

**Supplementary Table 1S.** List of lissencephaly related genes in the literature.

| Gene | References/Year |
|---|---|
| *1) LIS1 (PAFAH1B1)* | (Reiner et al. 1993; Chong et al. 1997) |
| *2) DCX* | (Gleeson et al. 1998) |
| *3) RELN* | (Hong et al. 2000) |
| *4) ARX* | (Kitamura et al. 2002) |
| *5) TUBA1A* | (Keays et al. 2007) |
| *6) TUBB2B* | (Jaglin et al. 2009) |
| *7) TUBA8* | (Abdollahi et al. 2009) |
| *8) VLDLR* | (Boycott et al. 2005) |
| *9) TUBB3* | (Poirier et al. 2010) |
| *10) NDE1* | (Alkuraya et al. 2011; Bakircioglu et al. 2011) |
| *11) TUBB (TUBB5)* | (Breuss et al. 2012) |
| *12) ACTB* | (Riviere et al. 2012) |
| *13) ACTG1* | (Riviere et al. 2012) |
| *14) DYNC1H1* | (Willemsen et al. 2012) |
| *15) RNU4ATAC* | (Abdel-Salam et al. 2013) |
| *16) KIF2A* | (Poirier et al. 2013) |
| *17) KIF5C* | (Poirier et al. 2013) |
| *18) TUBG1* | (Poirier et al. 2013) |
| *19) KATNB1* | (Mishra-Gorur et al. 2014) |
| *20) CDK5* | (Magen et al. 2015) |
| *21) CRADD* | (Di Donato et al. 2016) |
| *22) DMRT5* | (Urquhart et al. 2016) |
| *23) CIT* | (Harding et al. 2016) |
| *24) PIDD1* | (Harripaul et al. 2018) |
| *25) CTNNA2* | (Schaffer et al. 2018) |

| | |
|---|---|
| *26) MACF1* | (Dobyns et al. 2018) |
| *27) MAST1* | (Tripathy et al. 2018) |
| *28) TUBGCP2* | (Mitani et al. 2019) |
| *29) APC2* | (Lee et al. 2019) |
| *30) CEP85L* | (Tsai et al. 2020) |
| *31) DAB1* | (Smits et al. 2021) |

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