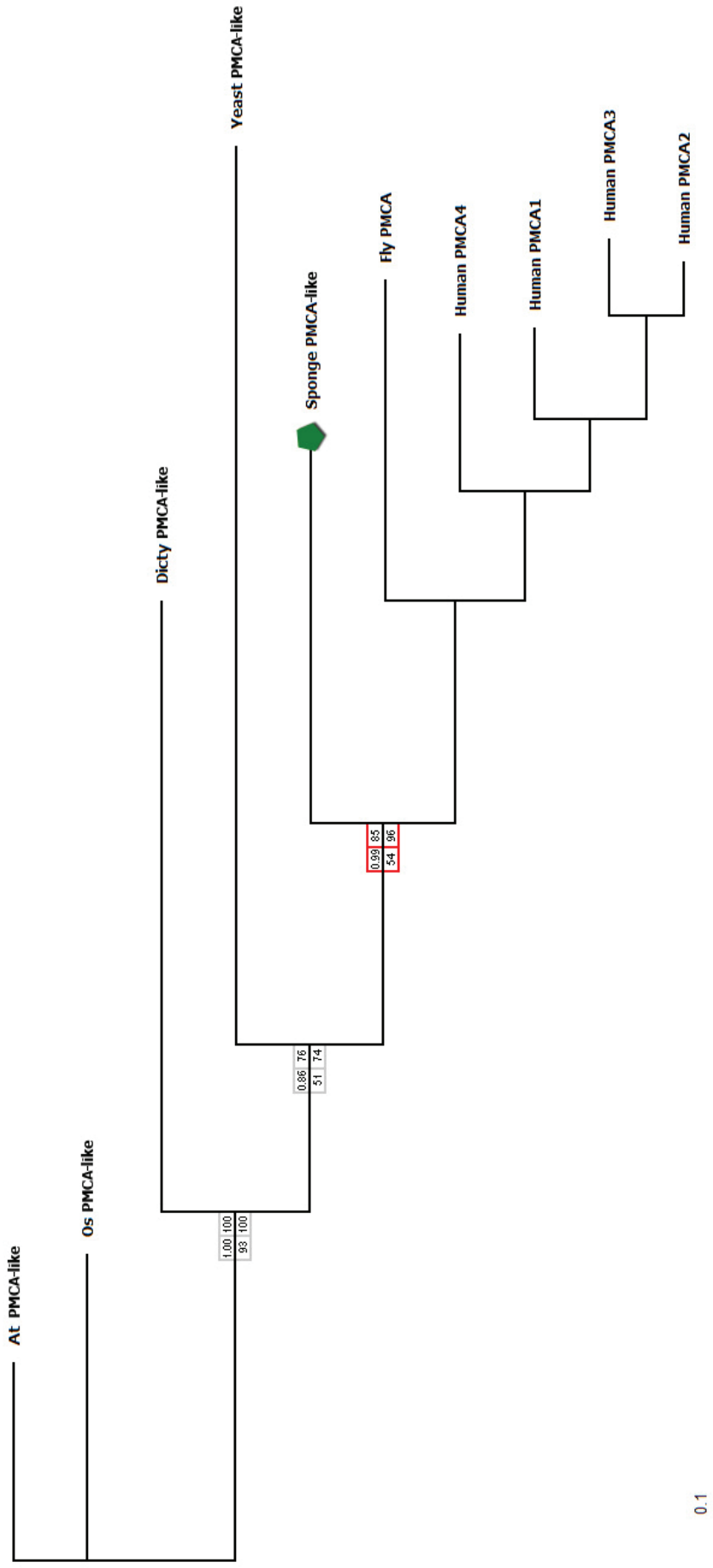
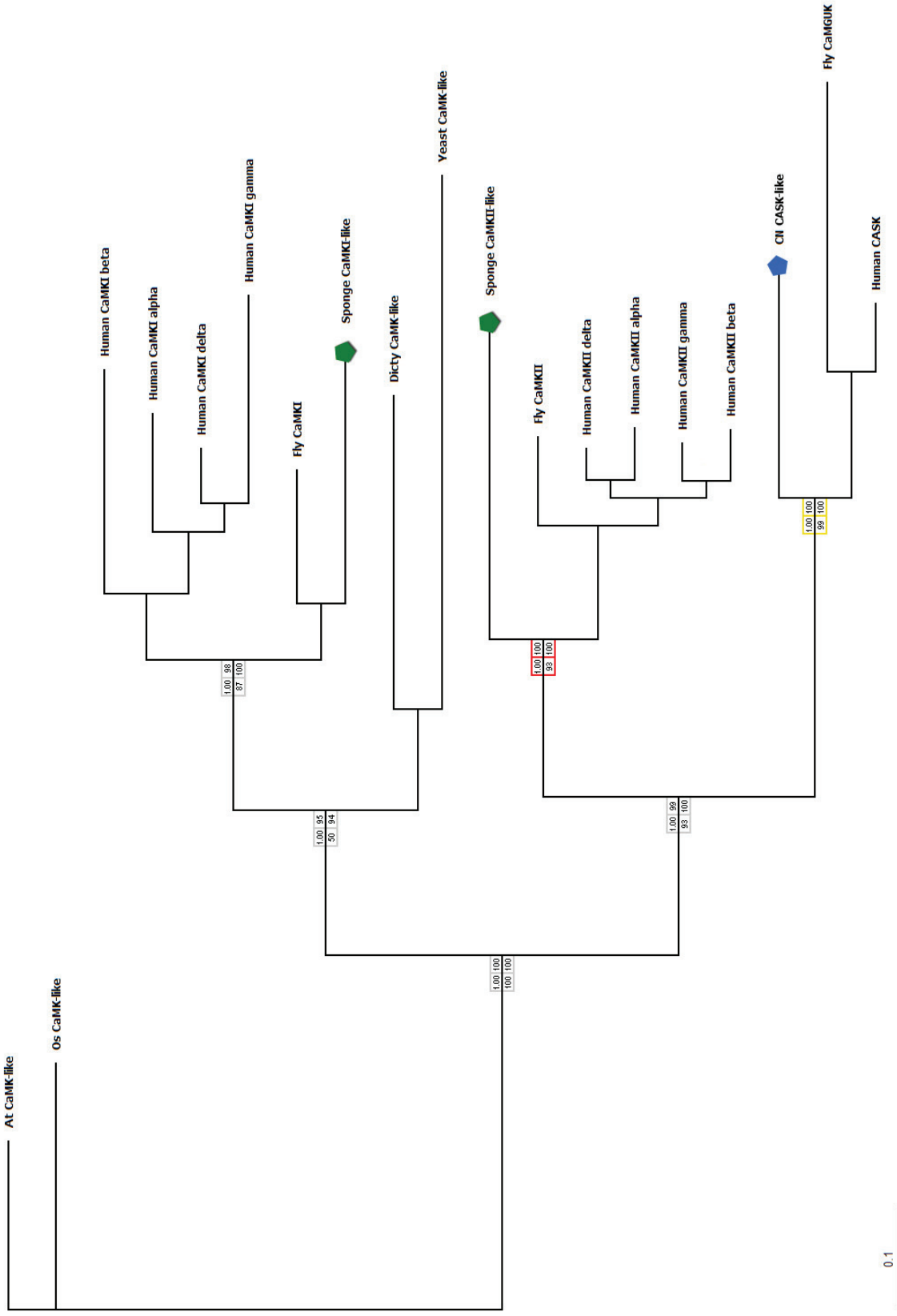


**Figure S1.1.** Phylogenetic analyses of NOS family.

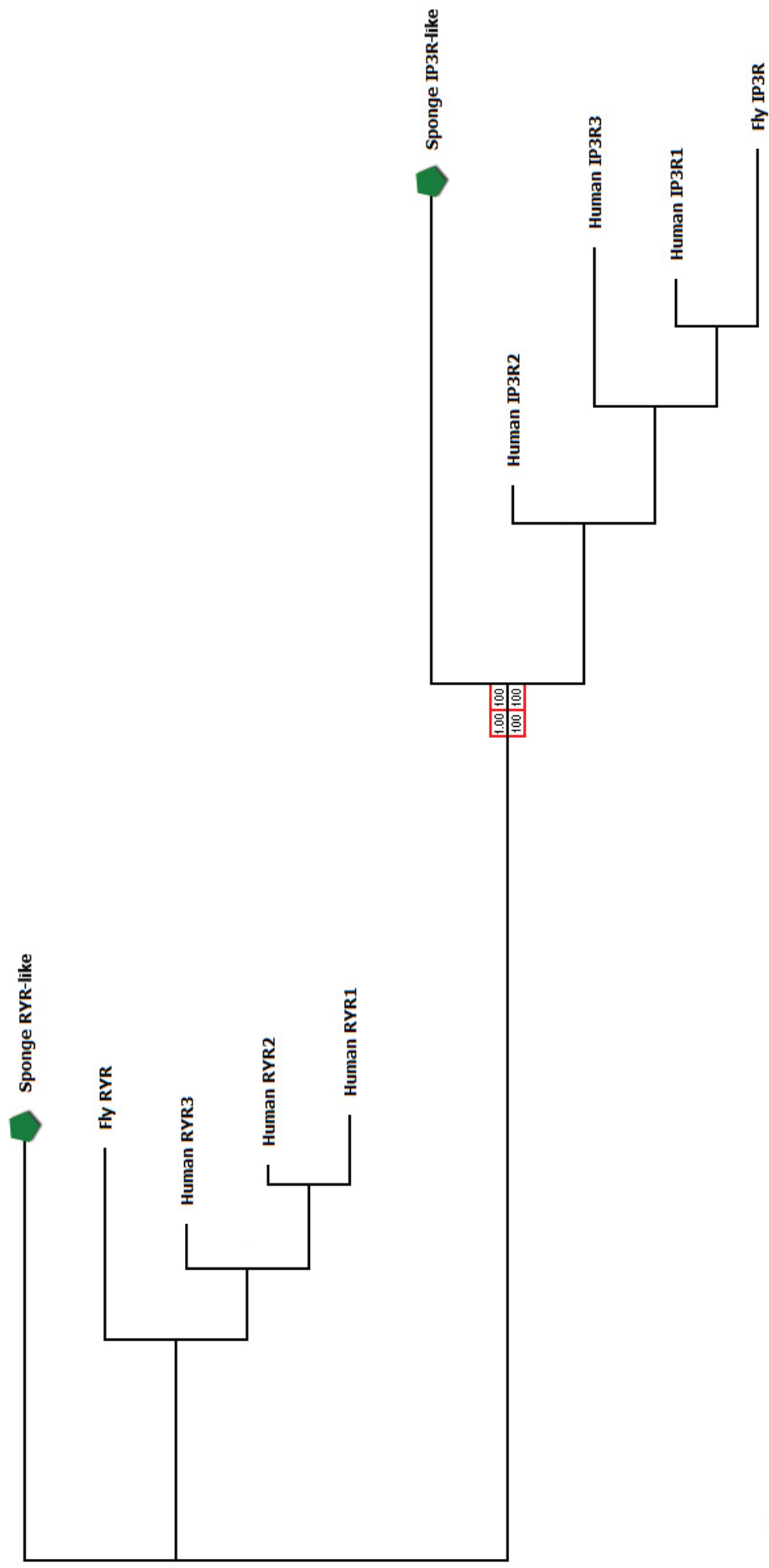


**Figure S1.2.** Phylogenetic analyses of PMCA family.

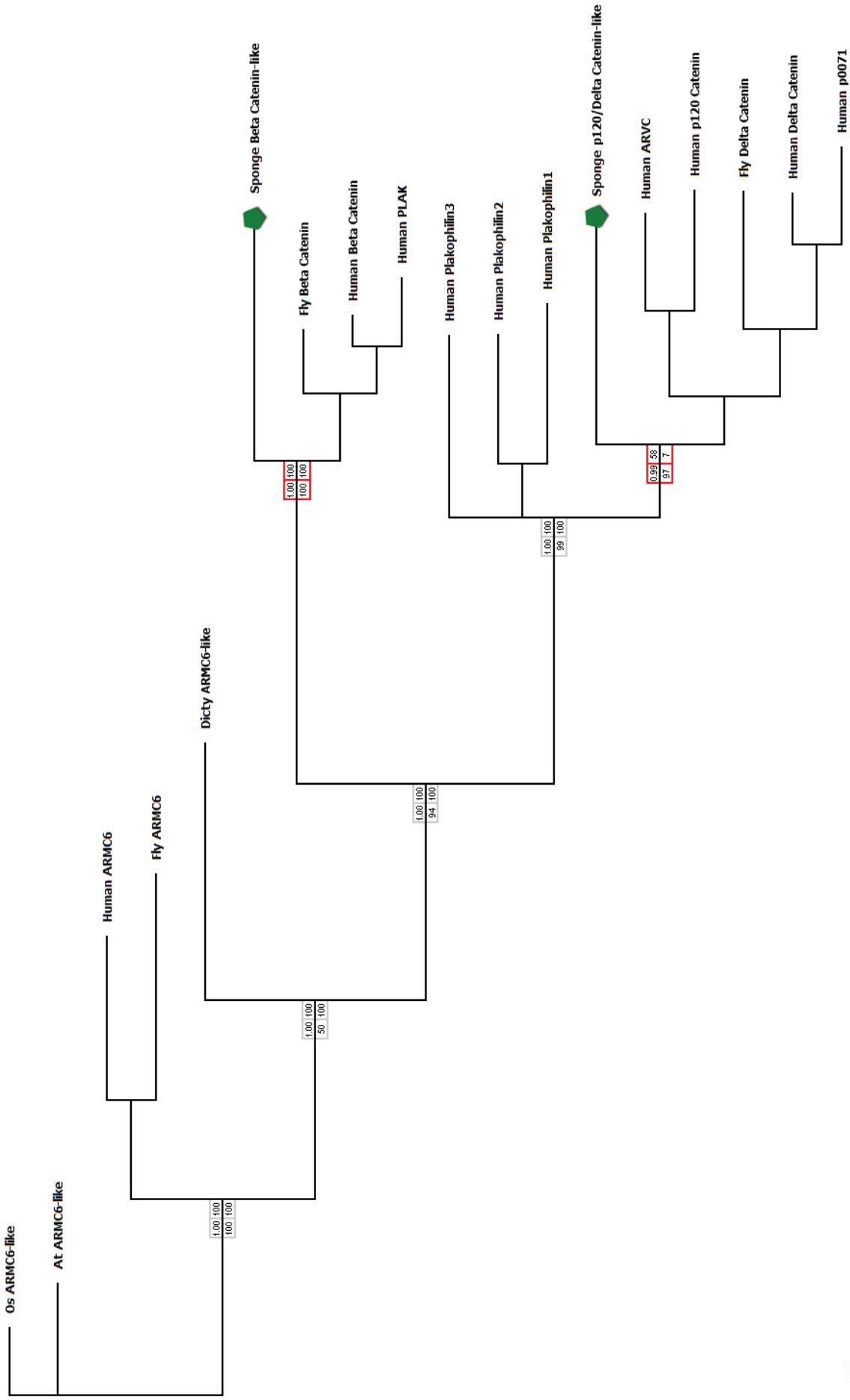


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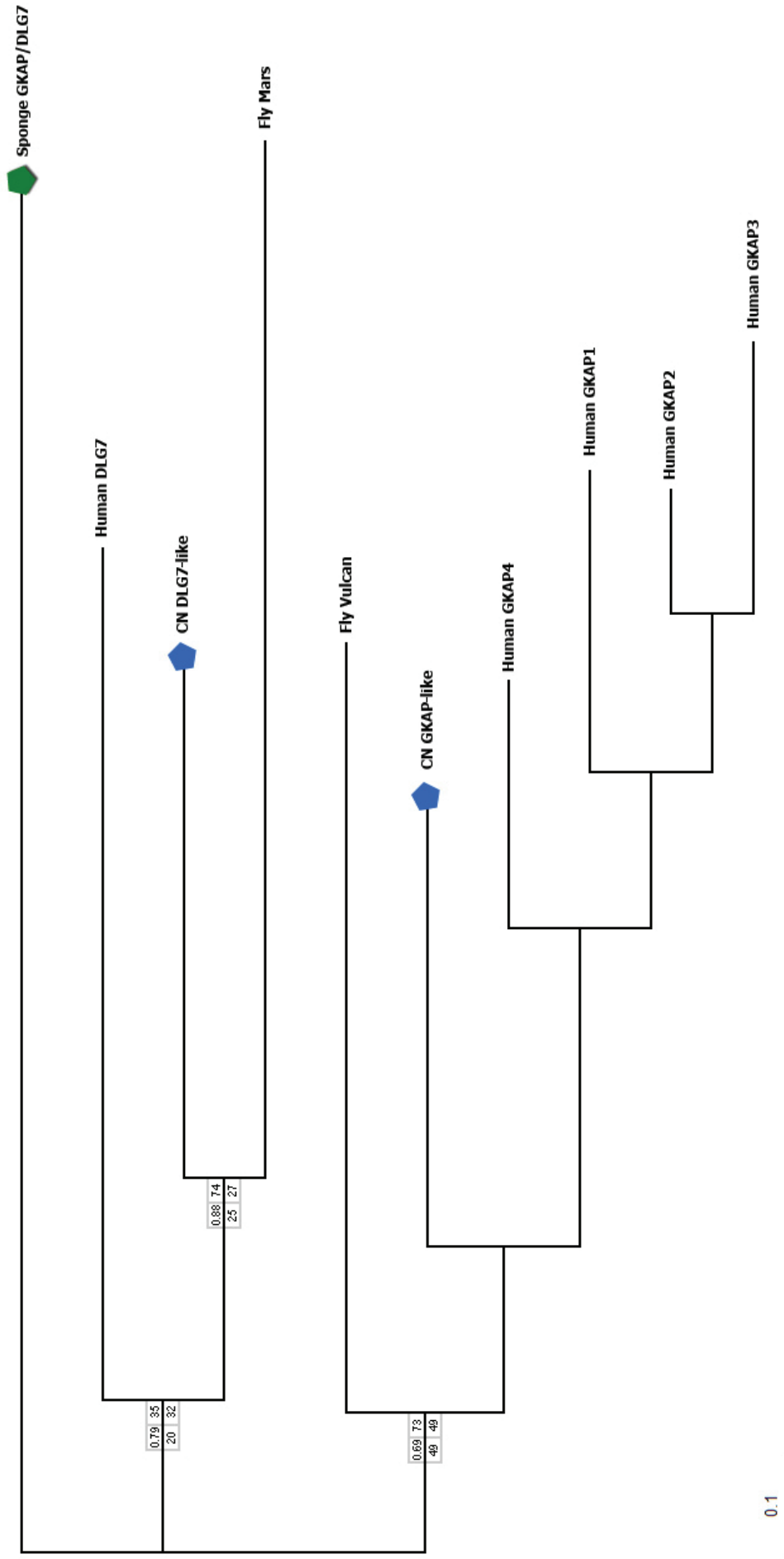
**Figure S1.3.** Phylogenetic analyses of CaMKII and CASK families.



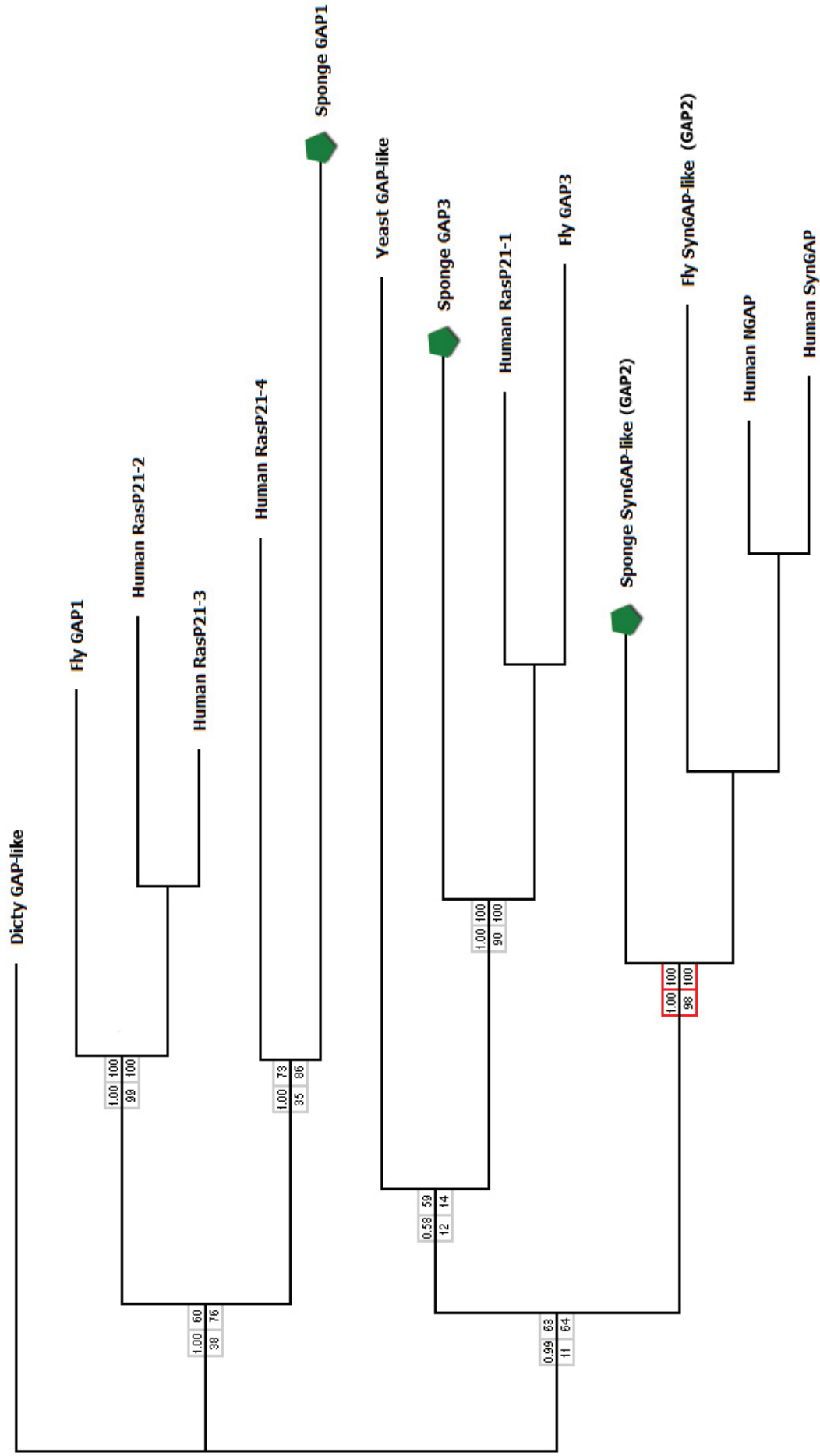
**Figure S1.4.** Phylogenetic analyses of IP3R family.



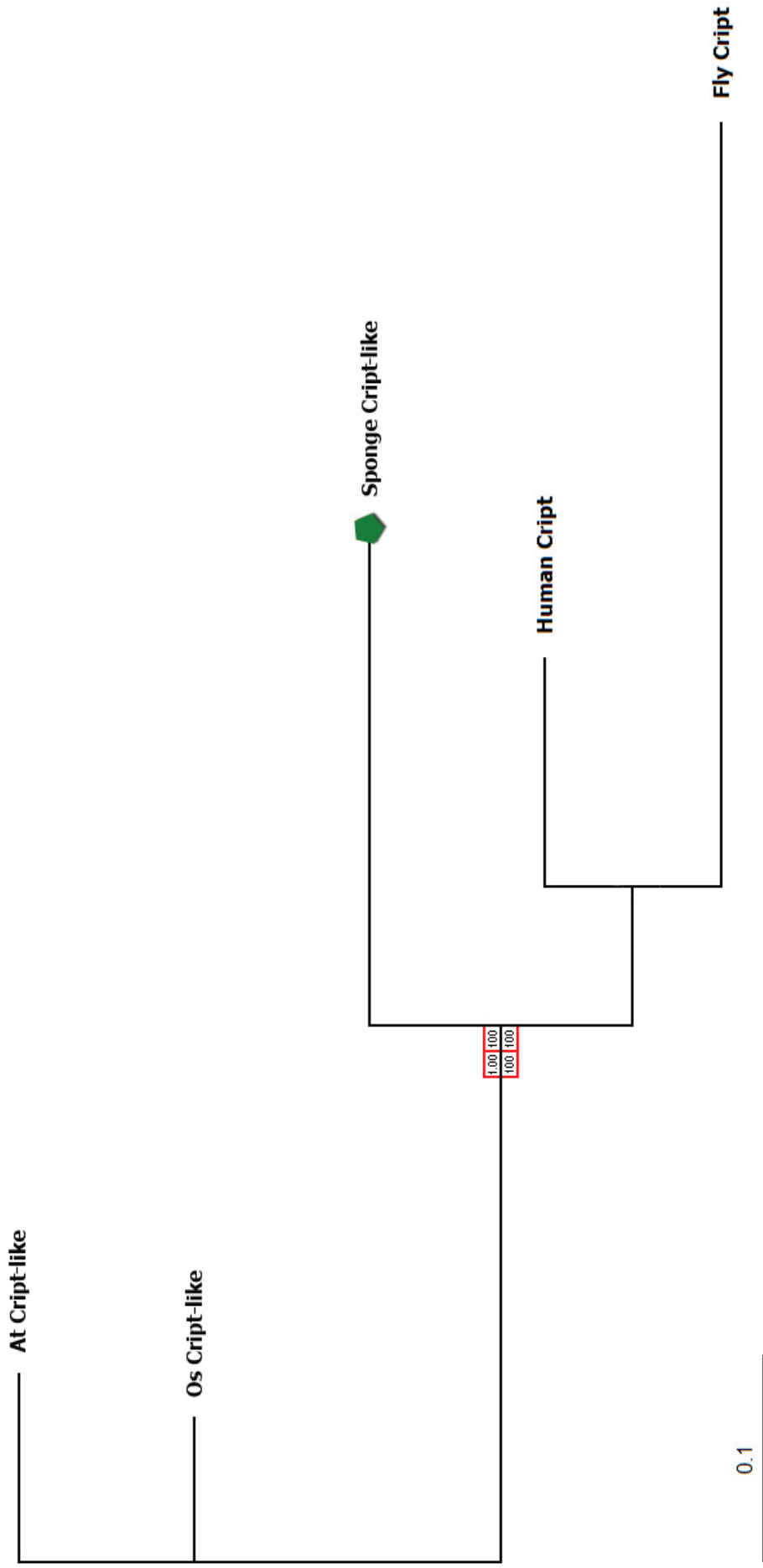
**Figure S1.5.** Phylogenetic analyses of Delta and Beta Catenin families.



**Figure S1.6.** Phylogenetic analyses of GKAP family.

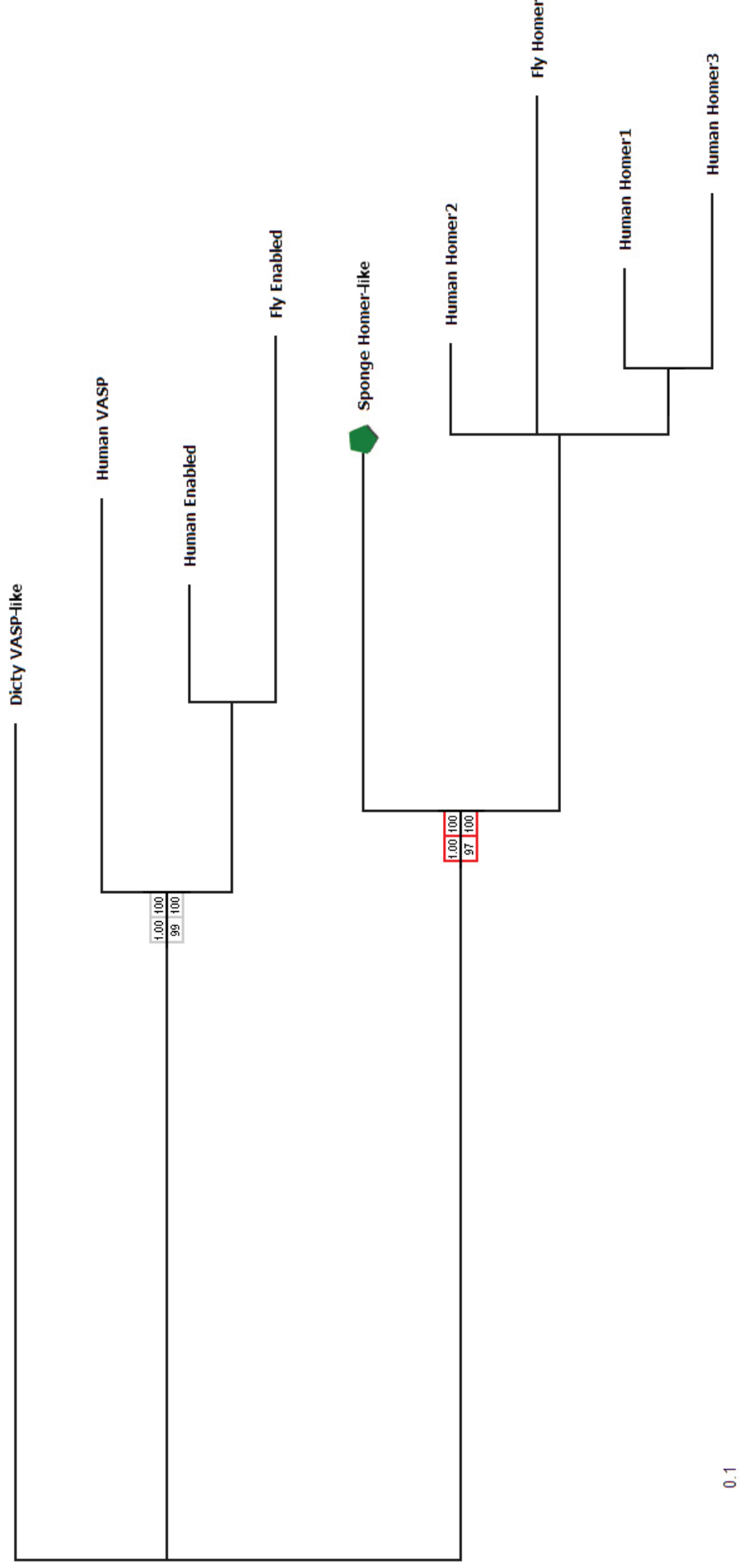


**Figure S1.7.** Phylogenetic analyses of SynGAP family.



**Figure S1.8.** Phylogenetic analyses of CRIPT family.





**Figure S1.9.** Phylogenetic analyses of Homer family.

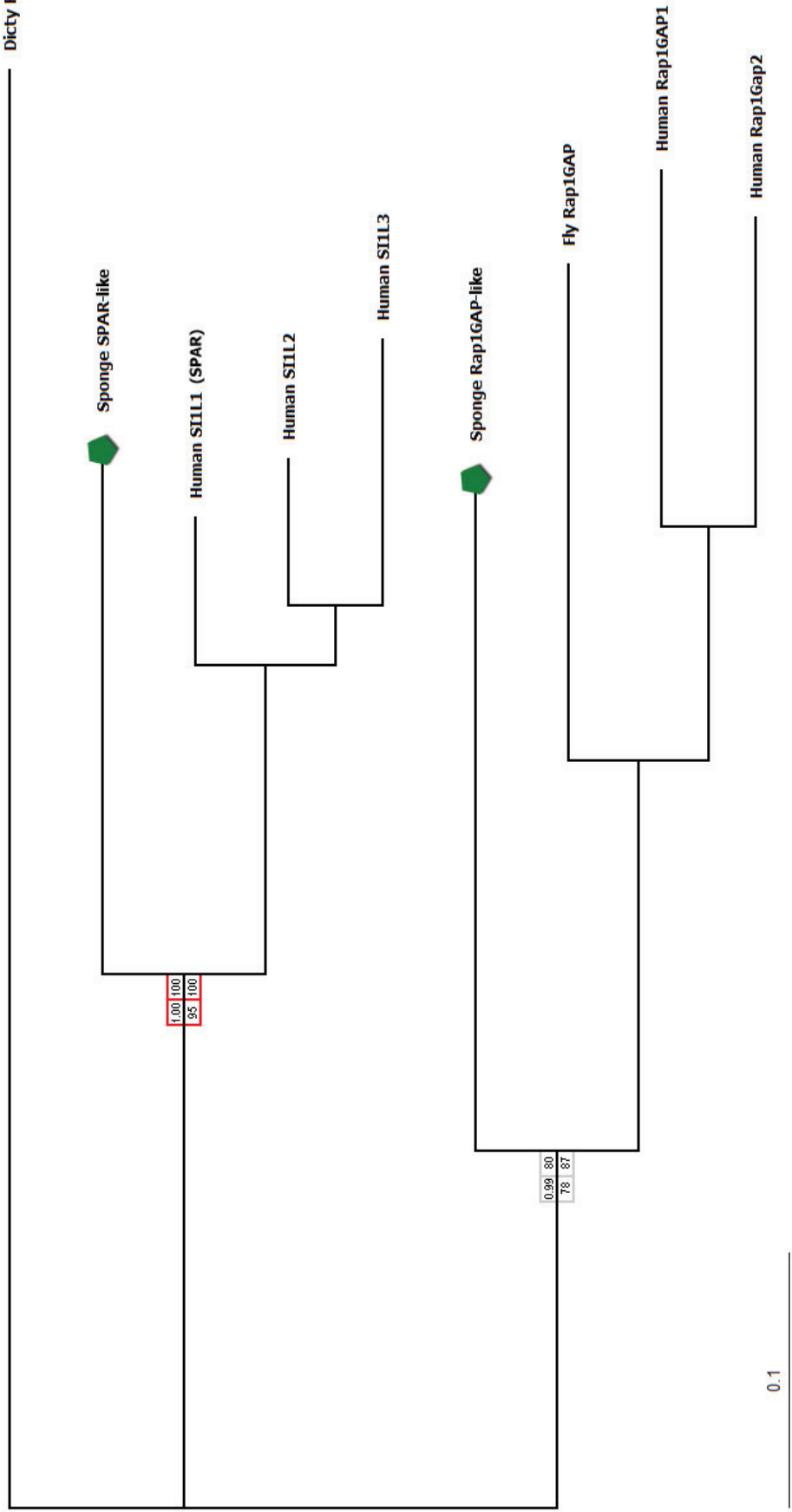
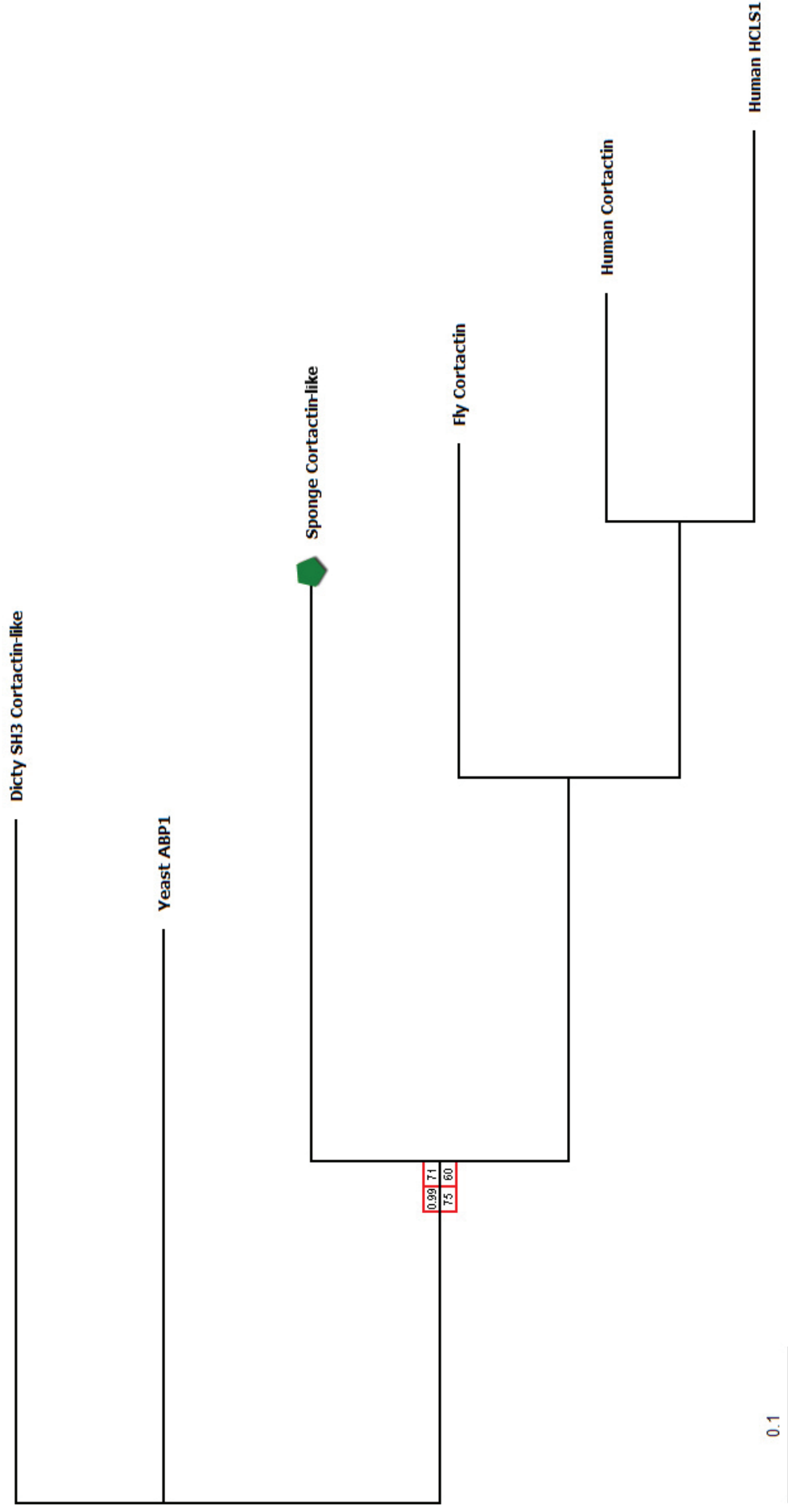


Figure S1.10. Phylogenetic analyses of SPAR family.



**Figure S1.11.** Phylogenetic analyses of Cortactin family.

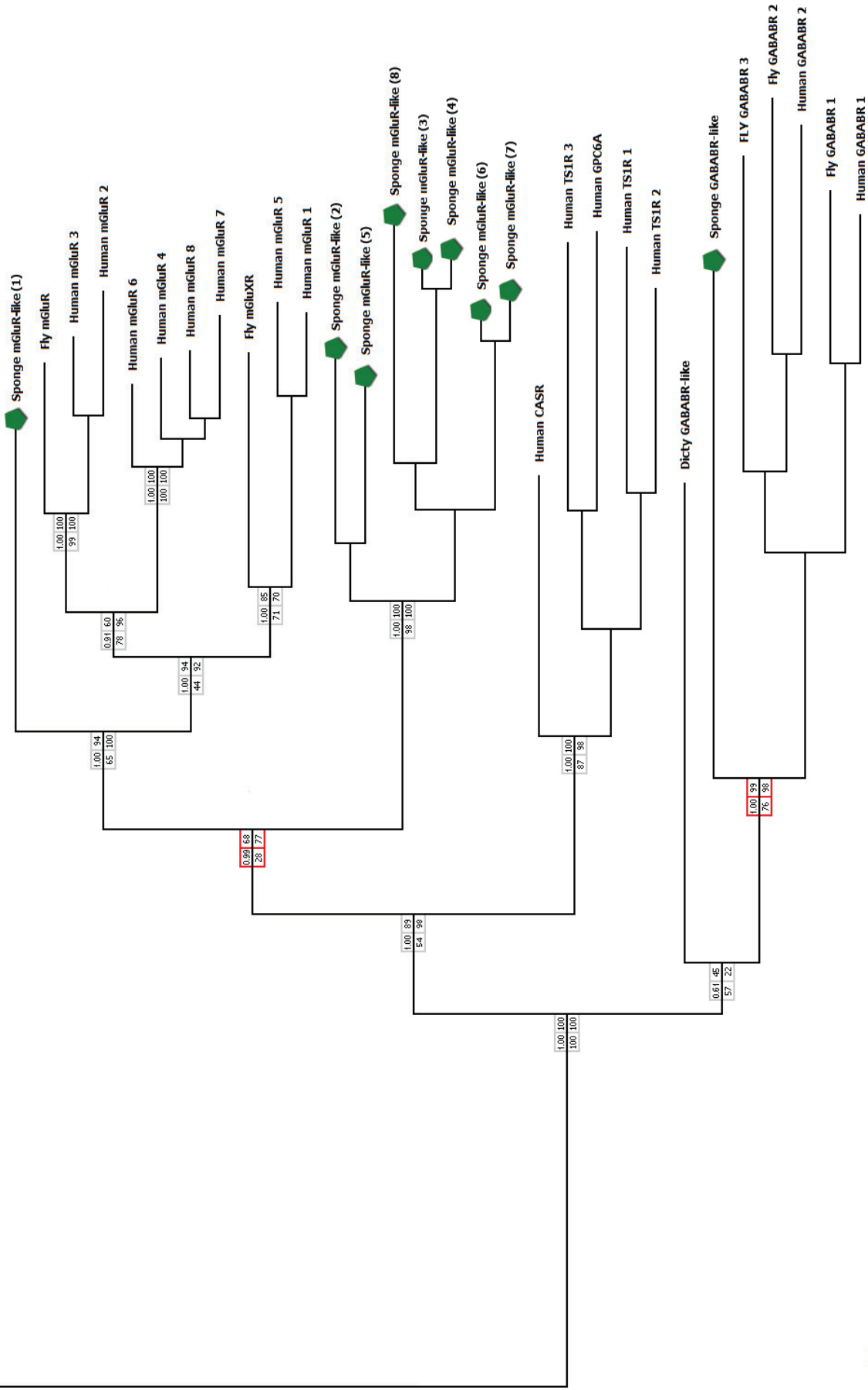


Figure S1.12. Phylogenetic analyses of Metabotropic GluR and GABAB Receptor families.

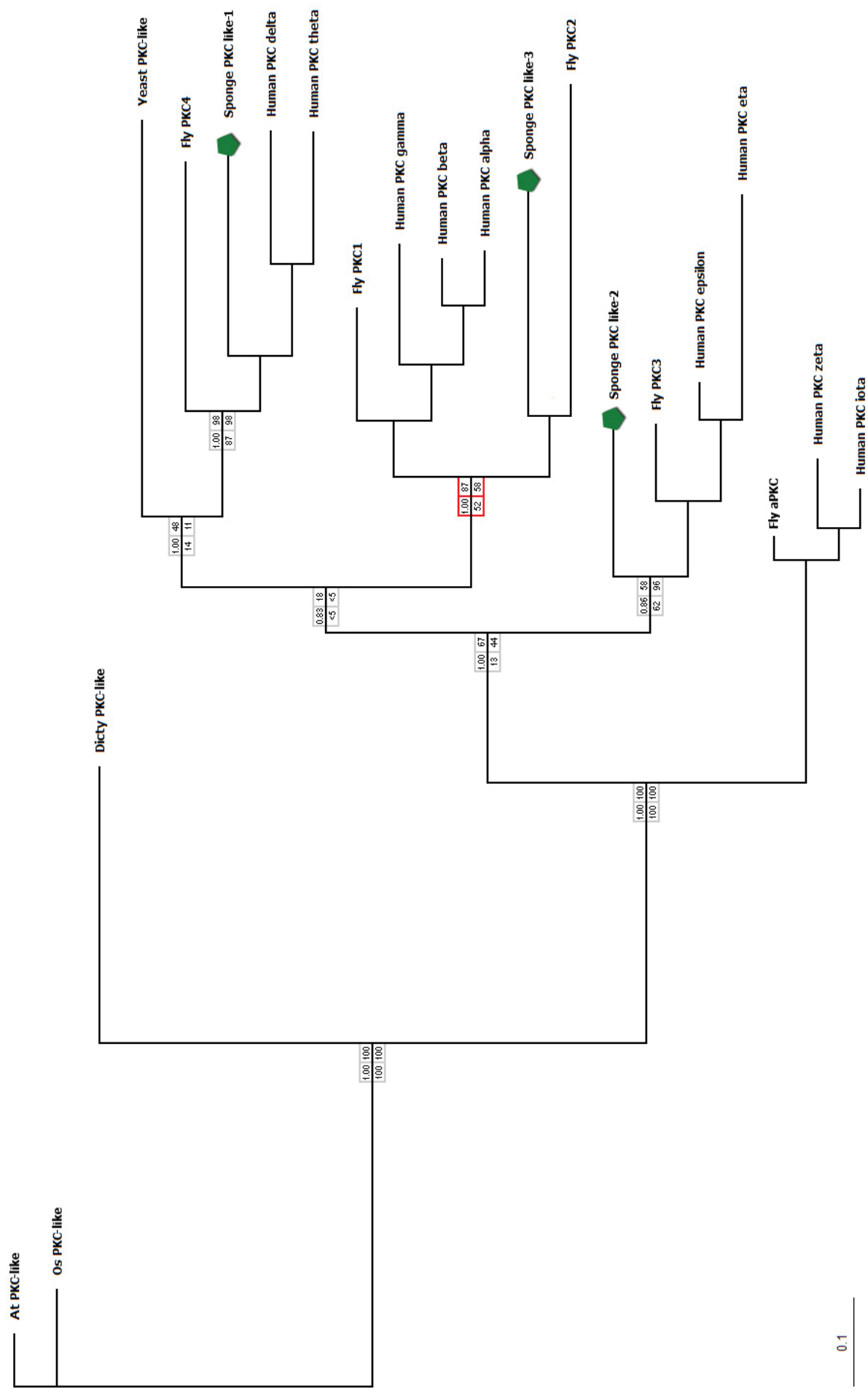
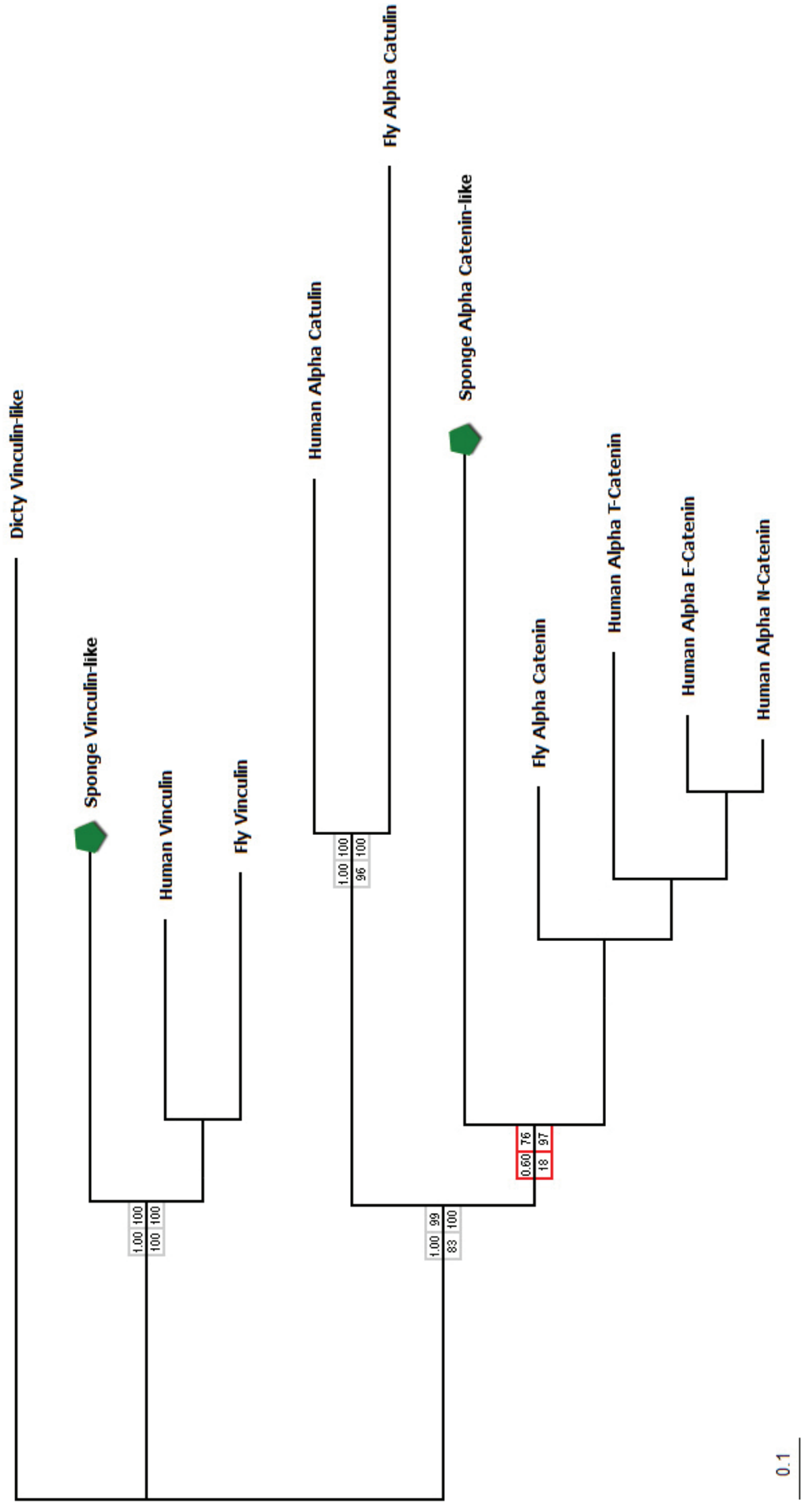


Figure S1.13. Phylogenetic analyses of PKC family.



**Figure S1.14.** Phylogenetic analyses of Alpha Catenin family.

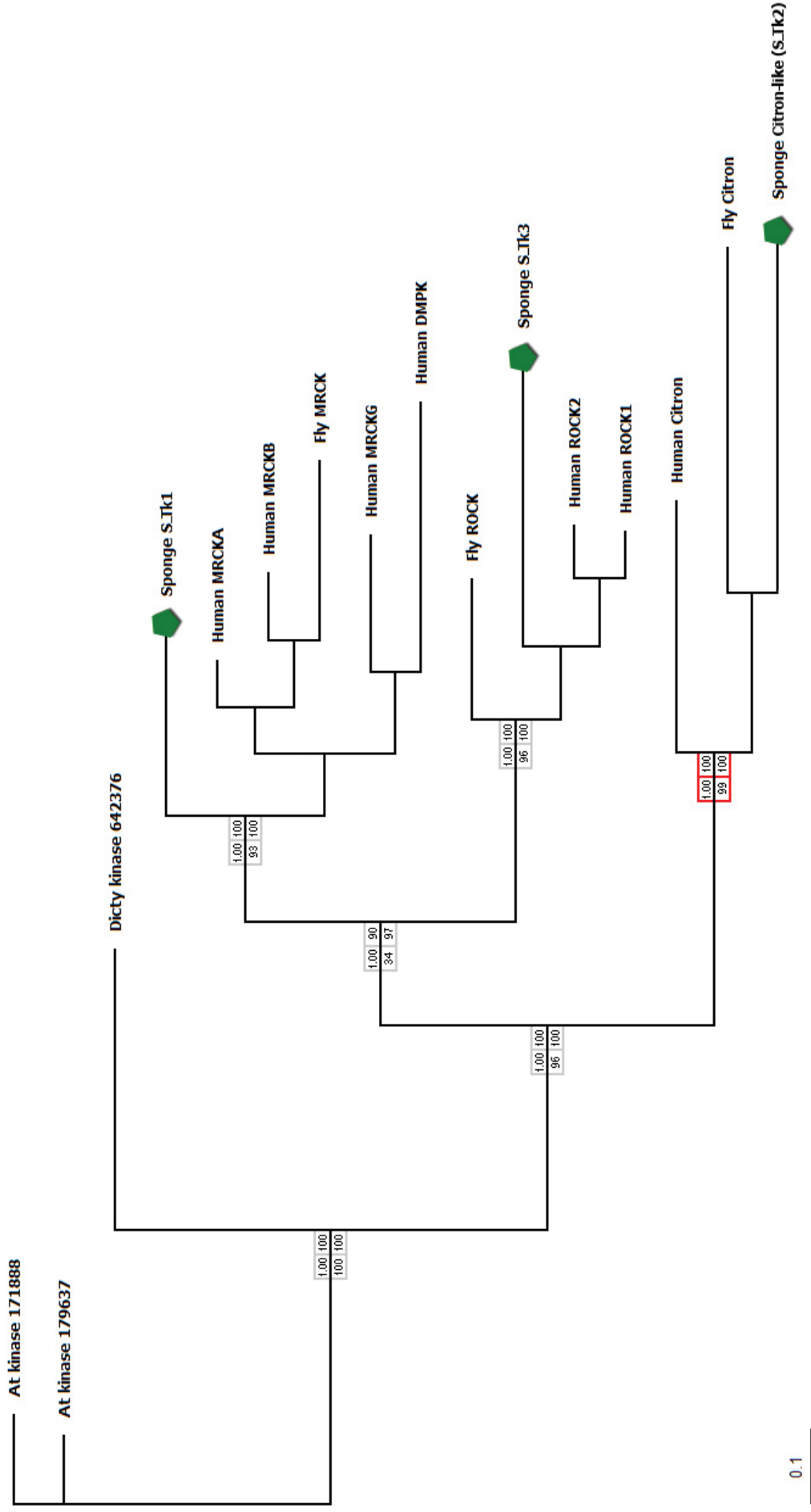


Figure S1.15. Phylogenetic analyses of Citron family.

Fly VD Calcium Channel-like

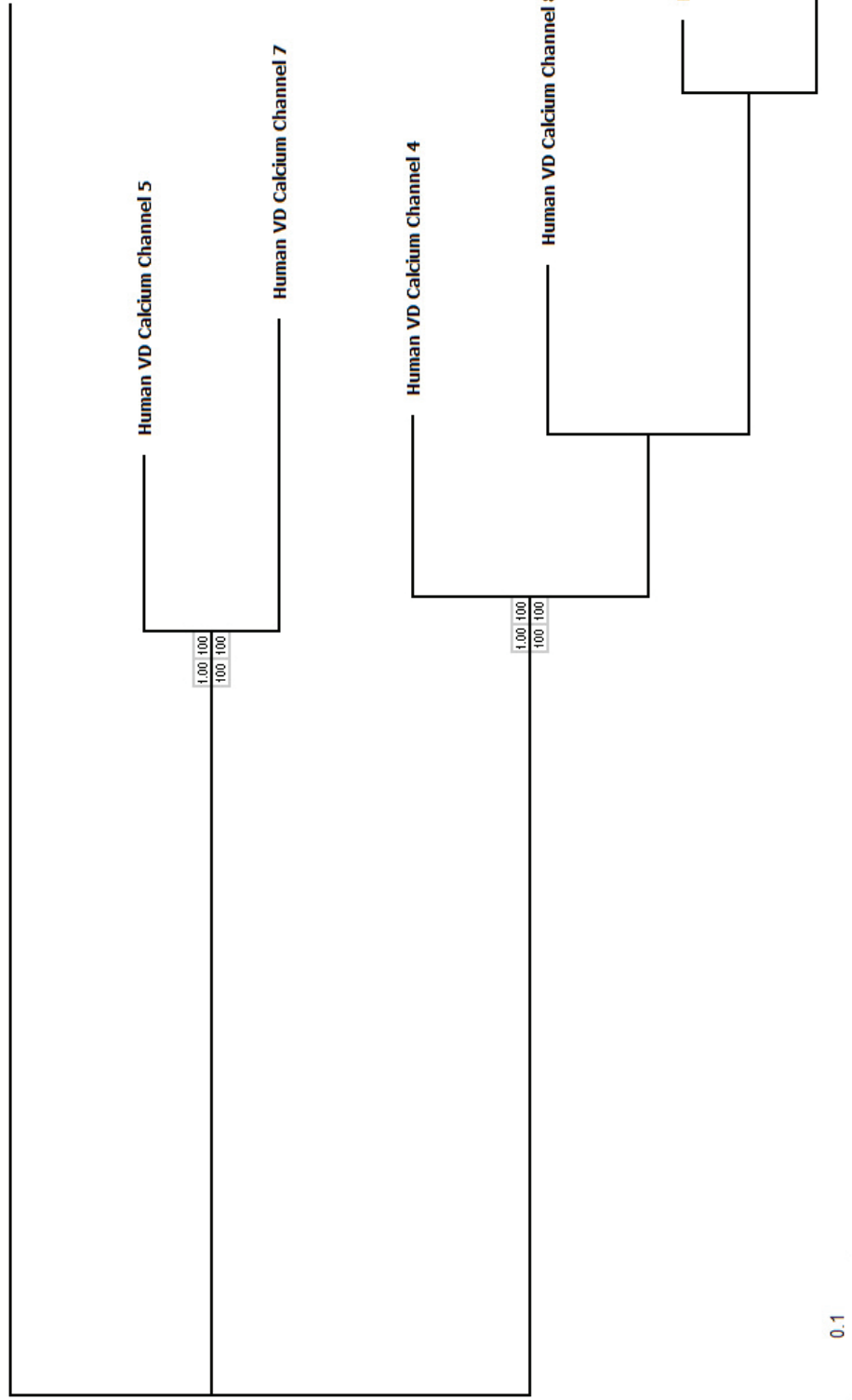
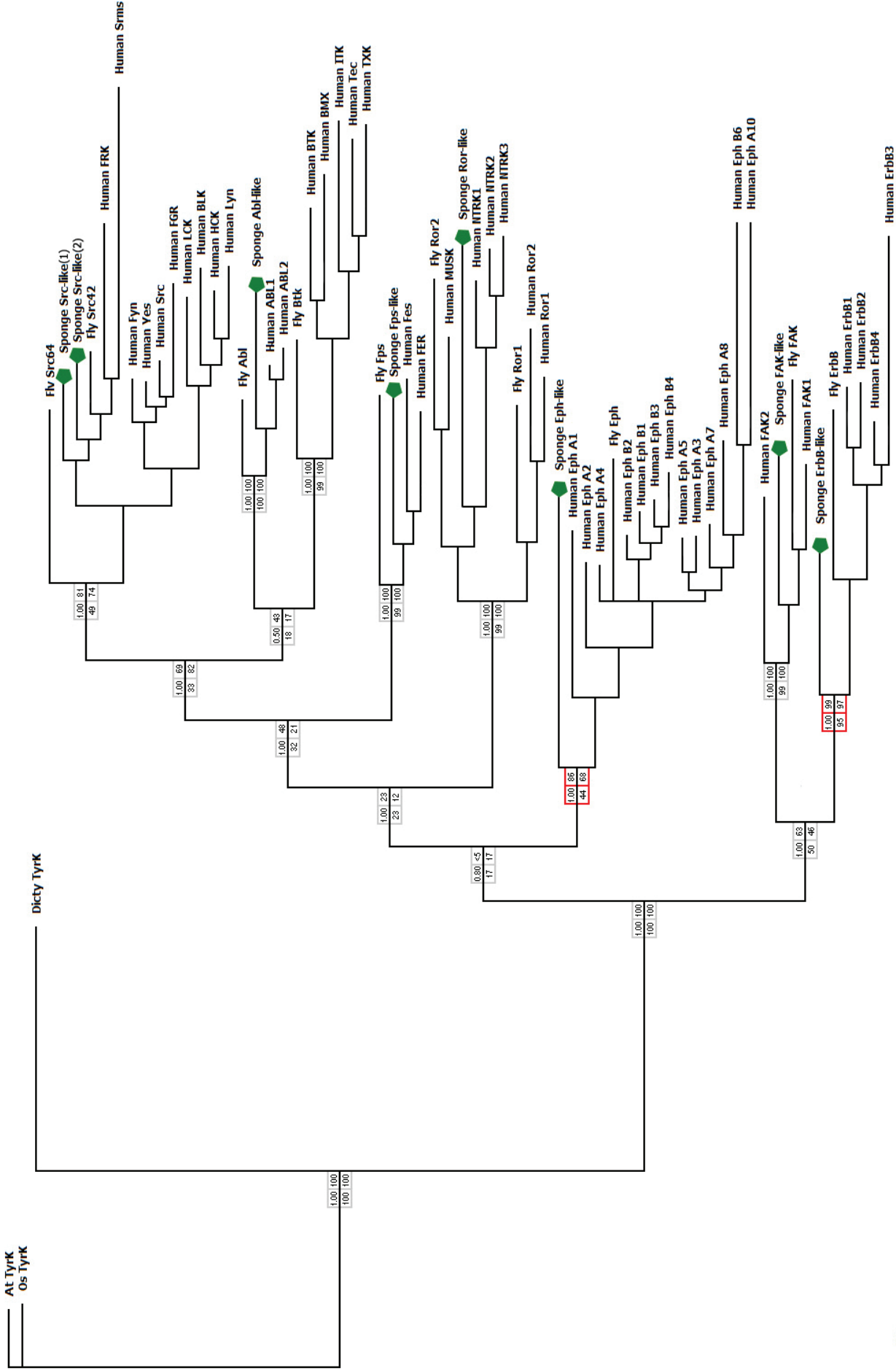


Figure S1.16. Phylogenetic analyses of Stargazin family.

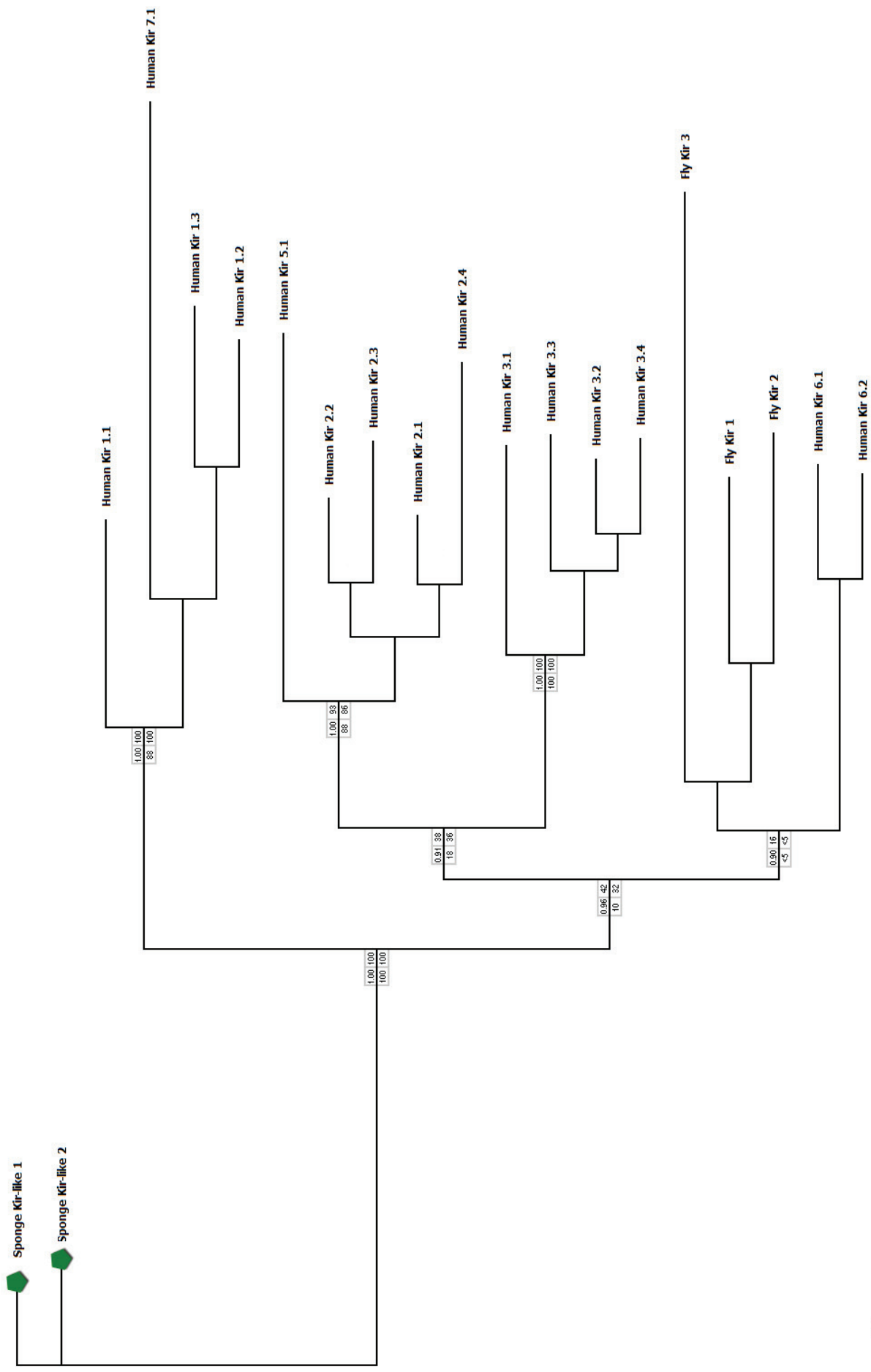




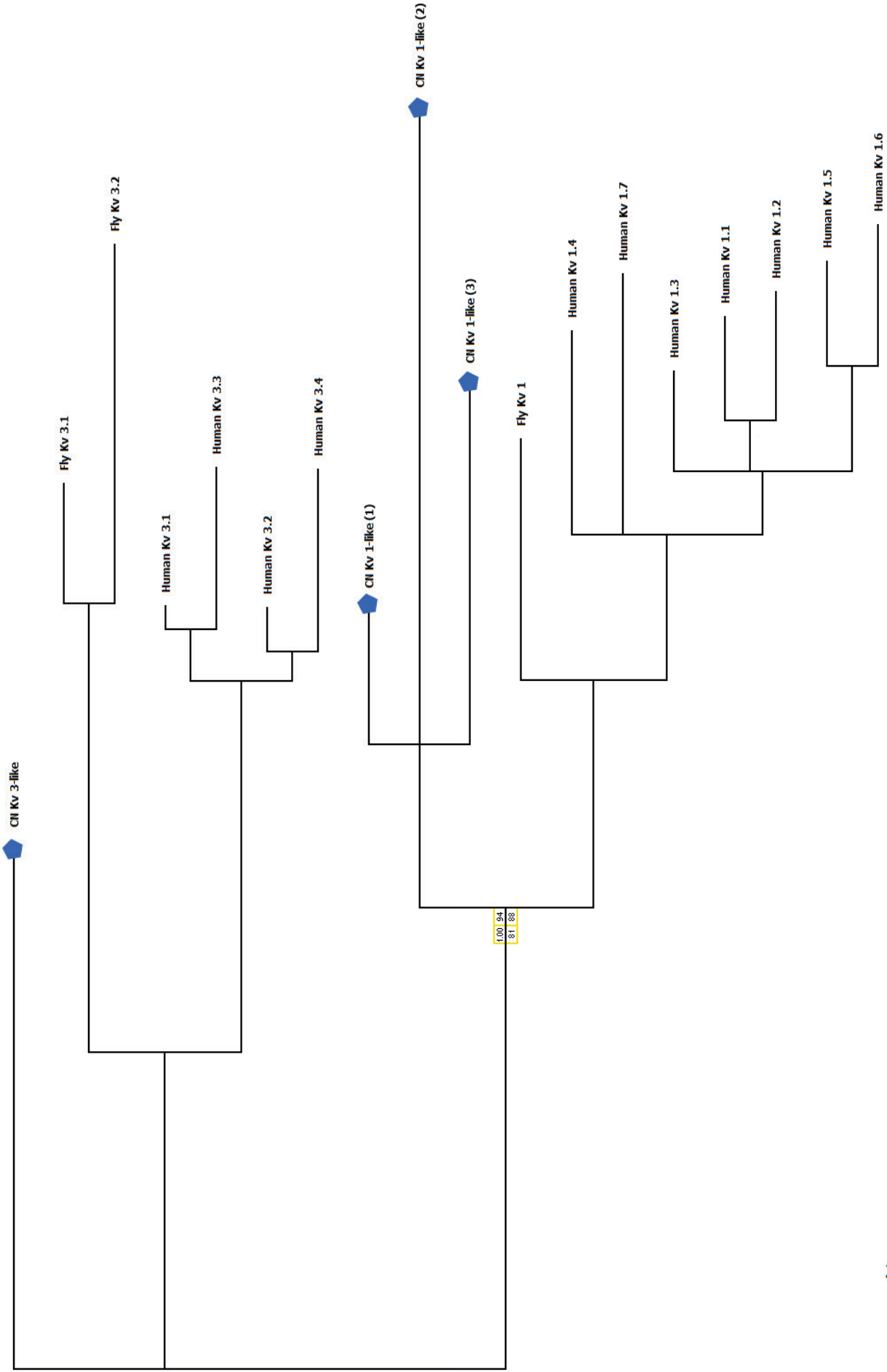
**Figure S1.17.** Phylogenetic analyses of Ephrin Receptor and ErbB Receptor families.







**Figure S1.20.** Phylogenetic analyses of K<sup>+</sup> Channel Kir family.



**Figure S1.21.** Phylogenetic analyses of K<sup>+</sup> Channel Shaker family.

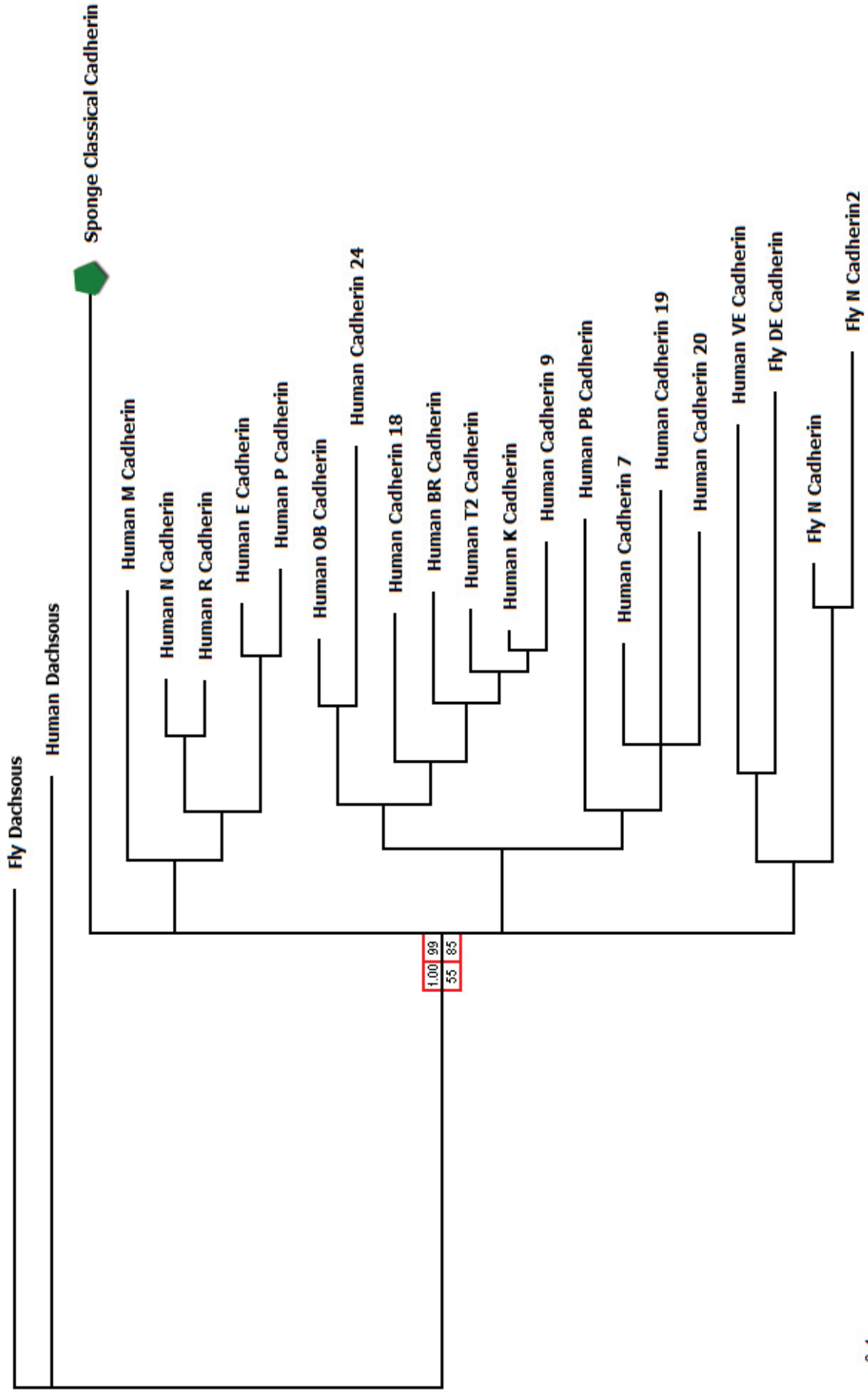
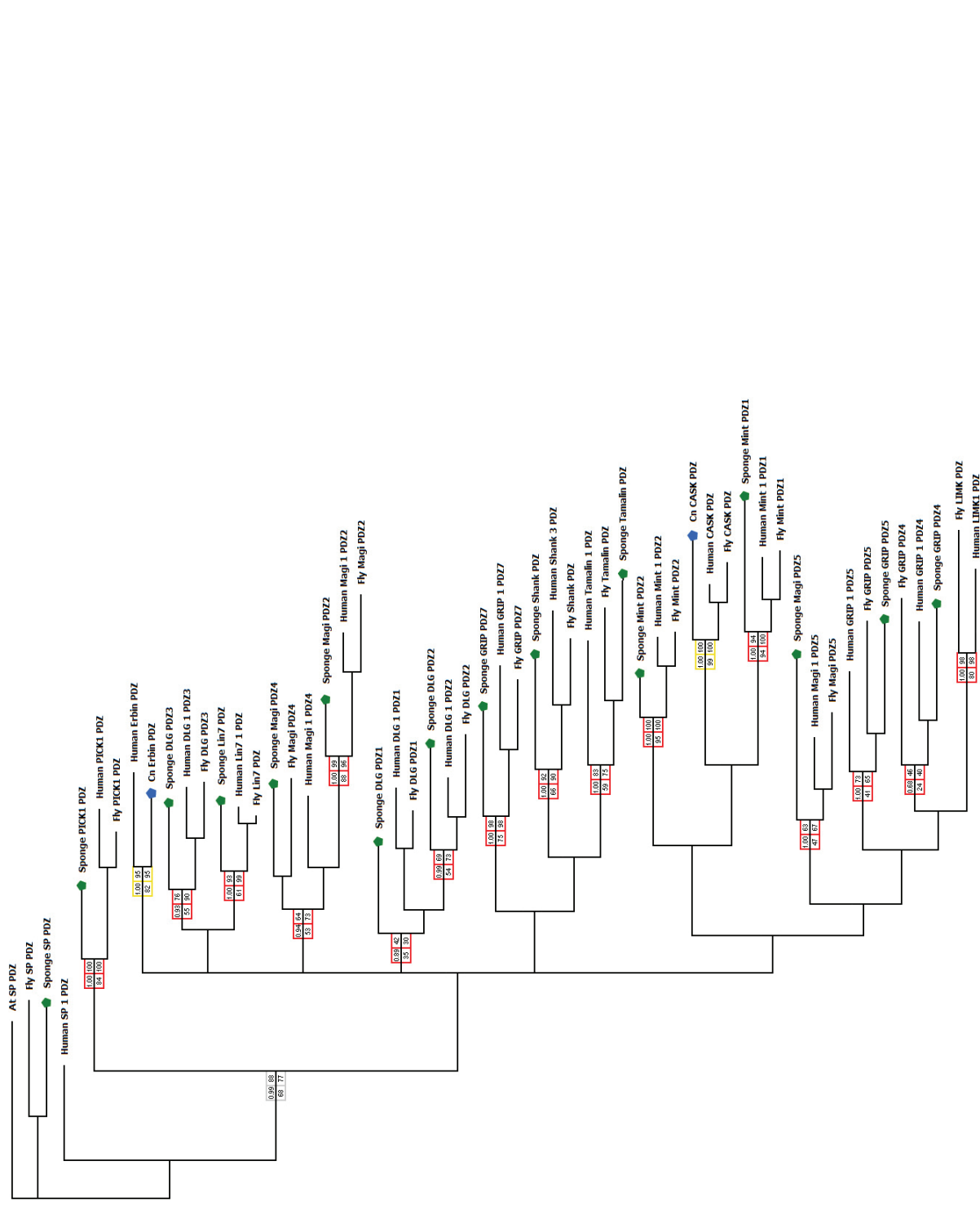


Figure S1.22. Phylogenetic analyses of Classical Cadherin family.



**Figure S1.23.** Phylogenetic analyses of DLG, Shank, GRIP, MAGI, LIN-7, LIMK, Mint, Tamalin, Erbin, NOS, PICK1, CASK families.