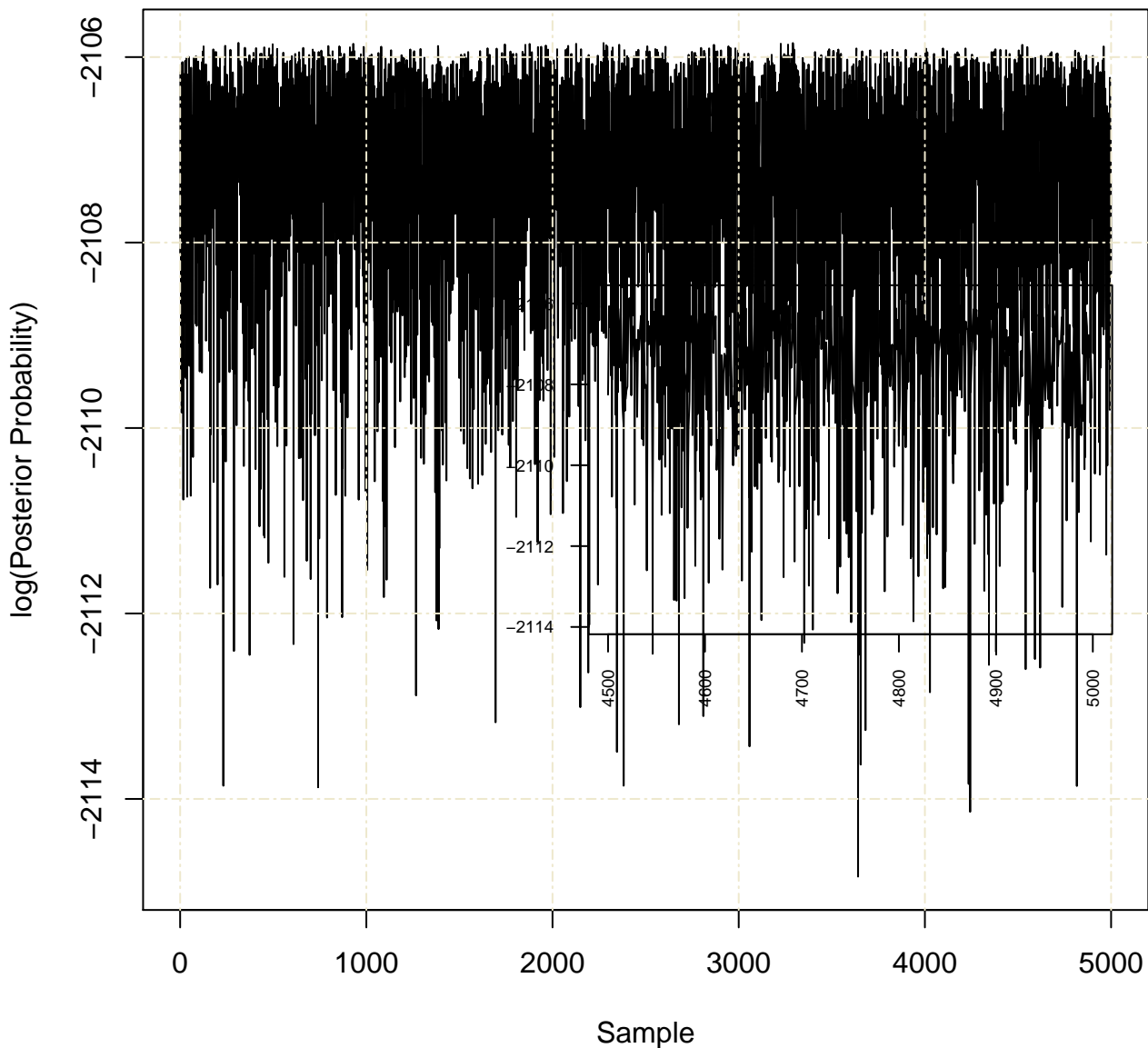**log(Posterior Probability): −2107.40254796305**

Trace of the Expected value of ϕ