Supplementary file 3. Stereological analyses of complex spines in CA3. Using an Optical Fractionator probe, complex spines were classified and counted in the left hemisphere of *Wlsfl/+;Gfap-Cre* and *Wlsfl/-;Gfap-Cre* mice. The table shows the number of counted spines and, in parentheses, stereologically estimated spines. Five distinct complex spine subtypes were classified: basic, big/prototypical, long, thin, and tall.

|  |  |  |
| --- | --- | --- |
|  | *Wlsfl/+;Gfap-Cre* | *Wlsfl/-;Gfap-Cre* |
|   | (4931 LH)count (estimate) | (4908 LH)count (estimate) |
| ***Basic spines*** | 453 (1115) | 212 (408) |
| *Gundersen Coefficient of Error* | 0,05 | 0,07 |
| ***Big/prototypical spines*** | 107 (263) | 31 (59) |
| *Gundersen Coefficient of Error* | 0,1 | 0,18 |
| ***Long spines*** | 178 (438) | 167 (321) |
| *Gundersen Coefficient of Error* | 0,08 | 0,08 |
| ***Tall spines*** | 209 (514) | 180 (346) |
| *Gundersen Coefficient of Error* | 0,07 | 0,07 |
| ***Thin spines*** | 99 (246) | 74 (142) |
| *Gundersen Coefficient of Error* | 0,1 | 0,12 |
| ***Total spines*** | 1046 (2576) | 664 (1292) |
| *Gundersen Coefficient of Error* | 0,03 | 0,04 |