**Supplementary Table 3:** Study quality checklist for the included studies. Studies were scored with one point per item when the information was provided, and with zero points if the information was missing.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Refs. | 1. Peer reviewed publication | 2. Animal model (specie, strain) | 3. Sex of the experimental animals | 4. Husbandry conditions and actions to improve animal welfare of the experimental animals (e.g., environmental enrichment) | 5. Description of the procedures, including when it was done, any preparation of the animals (prandial status, use of anaesthesia) | 6. Description of analysis, including name and brand of assays and kits  | 7. Details of the statistical methods used for each analysis | 8. Summary/descriptive statistics for each experimental group, with a measure of variability where applicable | 9. Compliance with animal welfare regulations | 10. Statement of potential conflict of interests | Total score (of 10) |
| ([39](#_ENREF_39)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 7 |
| ([63](#_ENREF_63)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 7 |
| ([66](#_ENREF_66)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| ([40](#_ENREF_40)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| ([68](#_ENREF_68)) | 1 | 1 | 1 | 0 | 0.5a | 1 | 1 | 1 | 1 | 0 | 7.5 |
| ([67](#_ENREF_67))  | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| ([36](#_ENREF_36)) | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 6 |
| ([69](#_ENREF_69)) | 1 | 1 | 1 | 0 | 0.5 a | 0 | 1 | 1 | 1 | 0 | 6.5 |
| ([49](#_ENREF_49)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 7 |
| ([43](#_ENREF_43)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 7 |
| ([38](#_ENREF_38)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| ([61](#_ENREF_61)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| ([65](#_ENREF_65)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 7 |
| ([58](#_ENREF_58)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 7 |
| ([55](#_ENREF_55))  | 1 | 1 | 1 | 0 | 0.5b | 0 | 1 | 1 | 1 | 0 | 6.5 |
| ([51](#_ENREF_51))  | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| ([34](#_ENREF_34)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| ([59](#_ENREF_59)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 8 |
| ([57](#_ENREF_57)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 7 |
| ([35](#_ENREF_35)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| ([62](#_ENREF_62)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| ([60](#_ENREF_60)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 7 |
| ([50](#_ENREF_50)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| ([70](#_ENREF_70)) | 1 | 1 | 1 | 0 | 0.5 a | 0 | 1 | 1 | 1 | 0 | 6.5 |
| ([37](#_ENREF_37)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| ([45](#_ENREF_45)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 8 |
| ([42](#_ENREF_42)) | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 9 |
| ([54](#_ENREF_54))  | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| ([31](#_ENREF_31)) | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 9 |
| ([56](#_ENREF_56)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 7 |
| ([44](#_ENREF_44)) | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 9 |
| ([41](#_ENREF_41)) | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 9 |
| ([32](#_ENREF_32)) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 |
| ([46](#_ENREF_46))  | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |
| ([47](#_ENREF_47)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 8 |
| ([52](#_ENREF_52)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 8 |
| ([64](#_ENREF_64)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 8 |
| ([48](#_ENREF_48)) | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 8 |
| ([53](#_ENREF_53)) | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 9 |

a information on fasting condition not provided

b information on anaesthesia not provided