



Cuprizone-Induced Mouse Model

Cuprizone is a copper chelator, that causes rapid demyelination and gliosis, and rapid proliferation of glia subtypes. The cuprizone mouse model captures several aspects of Multiple Sclerosis (MS) pathology like demyelination / remyelination, cognitive decline, and altered activity. C57Bl/6 mice are fed with cuprizone-containing chow for 1 month. Behavioral changes are analyzed within the last week of cuprizone treatment.

- Reduced MAO activity
- Reduced myelination
- Neuroinflammation

Figure 1
MAO Activity in the Brain

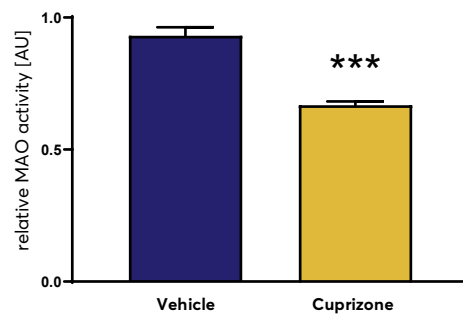


Figure 1: MAO activity in brain lysates of C57Bl/6 mice after 4 weeks of cuprizone treatment. Mean + SEM; n = 10 per group; t-test; ***p<0.001.

Figure 2
GFAP-IR area GFAP-Object density

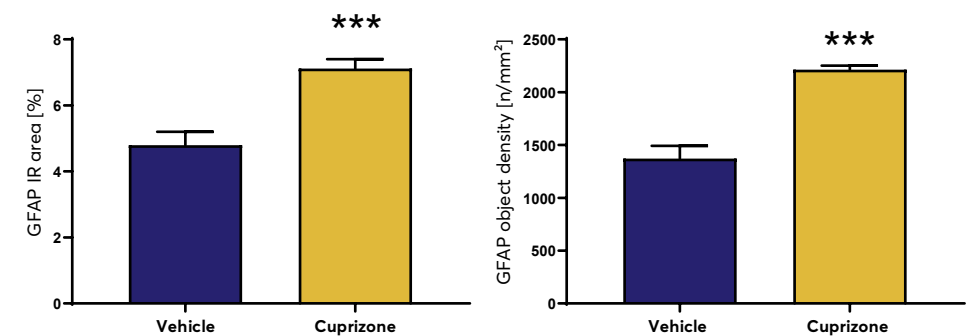


Figure 2: Quantification of astrocytes in the hippocampus of cuprizone treated C57Bl/6 mice. Immunoreactive area in percent and object density. Unpaired t-test or non-parametric Mann-Whitney U-test. n = 10 per group; Mean + SEM. ***p<0.001.

Xu H. et al., 2009: Xu H, Yang HJ, Zhang Y, Clough R, Browning R, Li XM. Behavioral and neurobiological changes in C57BL/6 mice exposed to cuprizone. Behav Neurosci. 2009 Apr;123(2):418-29.

