Review of: "Targeting Alzheimer's disease hallmarks with the Nrf2 activator Isoeugenol"

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Potential competing interests: No potential competing interests to declare.

The article presented here, is excellent. The study design is thorough, detailed, and the results are clearly presented and not misleading.

I only have minor comment

I would suggest to add a the hypothesis in the introduction section.

My main comment would be in regard of this statement: “More recently, the overexpression of TREM2 in the brain of APP/PS1 transgenic mice, was shown to rescue diseased-animals’ spatial cognitive deficits, decreased Aβ plaques burden and ameliorated inflammation (Ruganzu et al, 2021).”
TREM2 is important as well as B-Catenin, recent research found that both were connected. Since you observed variation in GSK3B and AKT, it would be interesting to quantify the expression level of B-Catenin in the Brain. This molecule is deeply involved in cell survival (https://alzres.biomedcentral.com/articles/10.1186/s13195-020-00747-7).

Last comment I have would be about the discussion section. I would suggest to discuss the limits of this study, and what would be the future for the molecule presented here.

I would also suggest to count the number of plaque in the hippocampus and cortex as well as the volume. Studies showed that the volume can be an important factor

Thanks