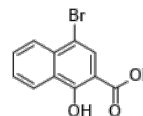


Product Name : ErbB4 receptor agonist E4A
Cat. No. : PC-24432
CAS No. : 5813-37-6
Molecular Formula : C₁₁H₇BrO₃
Molecular Weight : 267.08
Target : EGFR
Solubility : 10 mM in DMSO



Biological Activity

ErbB4 receptor agonist E4A is a small molecule ErbB4 receptor agonist, activates ErbB4 receptor and prevents neuronal senescence induced by D-Galactose through inhibition of the ferroptosis pathway. E4A significantly ameliorated the behavioral deficits induced by D-gal in mice, demonstrating an effect comparable to that of melatonin, a natural inhibitor of in vivo senescence and ferroptosis. E4A mitigated D-gal-induced aging in hippocampal neurons of mice. E4A markedly ameliorated Erastin-induced ferroptosis in mouse hippocampal neuronal cells. E4A upregulated the expression of dedicator of cytokinesis 3 (DOCK3) and Sirtuin 3 (SIRT3) and mitigated mitochondrial and synaptic dysfunction within the hippocampus of PS-MPs-exposed mice. E4A also diminished the activation of the TLR4-NF-κB-NLRP3 signaling pathway, consequently reducing neuroinflammation.

References

Dao JJ, et al. Front Pharmacol. 2025 Jan 31;16:1528604.
Liu C, et al. J Neuroinflammation. 2025 Mar 15;22(1):86.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com