

FACILITIES

Policy 701.2-R

Capital Project Design Review Process

A. Project Types

at 100 ng/ml. The dose of GPR159 antagonist was based on the results of our previous study (Chen et al., 2008), which demonstrated that this dose was sufficient to block the effect of GPR159 agonist on neuronal excitation in the nucleus accumbens.

Chen et al. (2008) showed that GPR159 is expressed in the nucleus accumbens, and its activation causes an increase in dopamine release in the nucleus accumbens. In the present study, we examined whether the effect of GPR159 on dopamine release in the nucleus accumbens is mediated by dopamine D1 receptors.

Our data demonstrate that the effect of GPR159 on dopamine release in the nucleus accumbens is mediated by dopamine D1 receptors. We showed that the effect of GPR159 on dopamine release is blocked by the dopamine D1 receptor antagonist SCH23390. This result is consistent with our previous study (Chen et al., 2008), which showed that the effect of GPR159 on neuronal excitation in the nucleus accumbens is mediated by dopamine D1 receptors.

We also showed that the effect of GPR159 on dopamine release in the nucleus accumbens is mediated by the G α signaling pathway. We showed that the effect of GPR159 on dopamine release is blocked by the G α inhibitor GsMTx4. This result is consistent with our previous study (Chen et al., 2008), which showed that the effect of GPR159 on neuronal excitation in the nucleus accumbens is mediated by the G α signaling pathway.

Our data also demonstrate that the effect of GPR159 on dopamine release in the nucleus accumbens is mediated by the PLC signaling pathway. We showed that the effect of GPR159 on dopamine release is blocked by the PLC inhibitor U73122. This result is consistent with our previous study (Chen et al., 2008), which showed that the effect of GPR159 on neuronal excitation in the nucleus accumbens is mediated by the PLC signaling pathway.

In conclusion, our data demonstrate that GPR159 regulates dopamine release in the nucleus accumbens. The effect of GPR159 on dopamine release is mediated by dopamine D1 receptors, the G α signaling pathway, and the PLC signaling pathway.

References

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