INTRODUCTION

Aflentanil is a sensitive aminoalcohol agonist evaluated by laparoscopic experimentation. Aflentanil undergoes oxidation by cytochrome P450 (CYP) enzymes and has been widely studied in various species. Alfentanil is a non-competitive antagonist of the μ-opioid receptor and has a high affinity for the K3.4 (CYP2C19) subfamily of CYP enzymes. The purpose of this study was to determine the formation of AMX at different CYP subtypes.

MATERIALS & METHODS

Chromatographic analysis of alfentanil and AMX was performed using liquid chromatography. Human liver microsomes were incubated with alfentanil (400 µM) at 37 ± 1 °C for 10 minutes with recombinant human CYP enzymes (rCYP1A1, rCYP1A2, rCYP2A6, rCYP2C9, rCYP2C19, rCYP2D6, rCYP2E1, rCYP3A4, rCYP3A5). Alfentanil (400 µM) was incubated in triplicate at 37 ± 1 °C for 10 minutes with recombinant human CYP enzymes (rCYP1A1, rCYP1A2, rCYP2A6, rCYP2B6, rCYP2C8, rCYP2C9, rCYP2C19, rCYP2D6, rCYP2E1, rCYP3A4, rCYP3A5). Alfentanil (400 µM) was incubated in triplicate at 37 ± 1 °C for 10 minutes with recombinant human CYP enzymes (rCYP1A1, rCYP1A2, rCYP2A6, rCYP2B6, rCYP2C8, rCYP2C9, rCYP2C19, rCYP2D6, rCYP2E1, rCYP3A4, rCYP3A5).

RESULTS

The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil. The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil. The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil. The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil. The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil. The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil. The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil. The sample-to-sample variation in the rates of AMX formation from alfentanil was determined by correlation analysis with the sample-to-sample variation in AMX formation rates from alfentanil.

CONCLUSION

Aflentanil is a non-competitive antagonist of the μ-opioid receptor and has a high affinity for the K3.4 (CYP2C19) subfamily of CYP enzymes. The purpose of this study was to determine the formation of AMX at different CYP subtypes.

REFERENCES