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Gut Rhythm Prediction Report

Drug name: **Drug Name**
Short name: Short name
Drug CAS number: CAS number of drug
SIDER_ID: SIDER_ID
Dates of experiment: Experiment date

Summary

Drug Name is **likely** to induce List of ADR.

Drug Name is **unlikely** to induce List of ADR.

Prediction models performance and Probability

All prediction models for each adverse drug reaction (ADR) are separately trained models using the AEON models (www.aeon-toolkit.org). The best trained models were selected to create this prediction report. Every model has an accuracy at over 0.68 and the area under the receiver operating characteristic curve (AUROC) at over 0.68 to secure an acceptable overall accuracy of the trained prediction model used for this prediction report.

Positively-correlated ADR table

positive ADR list

A precision value at over 0.8 for positively-correlated predictions for each ADR was used as the final gate to predict if Drug Name could potentially induce that ADR. Probability value sorted in the order the highest probability to the lowest (0.5).

Negatively-correlated ADR table

Negative ADR table

A precision value at over 0.8 for negatively-correlated predictions for each ADR was used as the final gate to predict that Drug Name will NOT induce that ADR.

Accuracy	Overall accuracy of drug being correctly predicted
AUROC	Area under the receiver operating characteristic (AUROC) - the model's ability to discriminate between positively-correlated and negatively-correlated class
Precision(c1)	how often an ML model is correct when predicting the positively-correlated side effect (class 1)
Precision(c0)	how often an ML model is correct when predicting the negatively-correlated side effect (class 0)
Probability	The prediction probability for the drug to induce that ADR