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New Validated RP-UPLC Method for Determination of Aripiprazole Assay in Aripiprazole Tablets

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***SUMMARY*. A simple, economic and time-efficient, isocratic reverse-phase ultra performance liquid chromatographic (RP-UPLC) method has been developed to analyze aripiprazole in tablets. Successful chromatographic elution and quantification of the drug was achieved on a Waters Symmetry C18, 100 mm x 4.6mm, 3.5 µm column, UV detection at 220 nm with a isocratic mobile phase comprising a mixture of component A (pH 2.5, phosphate buffer) and component B (methanol and acetonitrile (1:1, v/v) in the ratio of 45:55 (v/v). The flow rate was 1.0 mL/min. The method was validated for specificity, precision, linearity, accuracy, range, stability in analytical solution, robustness and system suitability. The linearity concentration range was 5.4-67.8 µg/mL with the correlation coefficient of 0.9997. Total elution time was about 6 min which allowed quantification of more than 100 samples per day.**

KEY WORDS: Aripiprazole, Column liquid chromatography, Isocratic, Reverse phase, Validation.

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