

Research article

Estimation of Saxagliptin hydrochloride and Dapagliflozin propendiol monohydrate in combined dosage form

Asim M Suthar, Laxman M Prajapati^{*}, Amit K Joshi, Jimish R Patel, Mohammadali L Kharodiya

Shri B. M. Shah College of Pharmaceutical Educational and Research, Modasa-383315, Gujarat, India.

Keywords: Dapagliflozin propendiol monohydrate, saxagliptin hydrochloride, UV- spectroscopy, dual wavelength.

***Corresponding Author: Laxman M Prajapati**, Department of Pharmaceutical Chemistry, Shri B. M. Shah College of Pharmaceutical Educational and Research, Modasa-383315, Gujarat, India.

Abstract

Aim of present study is to develop simple, precise, and accurate method for simultaneous quantitative estimation of saxagliptin hydrochloride and dapagliflozin propendiol monohydrate in pharmaceutical tablet dosage form. The method was based on determination of saxagliptin hydrochloride at an absorbance difference between 214.40 nm - 220.0 nm and sapagliflozin propendiol monohydrate at an absorbance difference between 208.0 nm - 209.0 nm. The linearity was obtained in the concentration range of 4-16 µg/ml and 10-22 µg/ml for saxagliptin hydrochloride and dapagliflozin propendiol monohydrate respectively. The suitability of this method was proved by validation in accordance with ICH Q2 (R1) guidelines. The method was found to be accurate with percent recovery 99.30-99.86 % and 100-100.31% for saxagliptin hydrochloride and dapagliflozin propendiol monohydrate respectively. The proposed method was found to be simple and sensitive for routine quality control application of saxagliptin hydrochloride and dapagliflozin propendiol monohydrate used in pharmaceutical tablet dosage form.