عنوان مقاله:

Development and validation of analytical method for simultaneous estimation of sofosbuvir and velpatasvir by RP-HPLC method in pharmaceutical dosage form

محل انتشار:

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نویسندگان:

Patel Grishma - *Assistant Professor, Pioneer Pharmacy Degree College, Nr. Ajwa Crossing, Vadodara, Gujarat, India*

Patel Dhara - *Assistant Professor, Pioneer Pharmacy Degree College, Nr. Ajwa Crossing, Vadodara, Gujarat, India*

Reema Mansuri - *Assistant Professor, Pioneer Pharmacy Degree College, Nr. Ajwa Crossing, Vadodara, Gujarat, India*

Sapra Ritu - *Assistant Professor, Pioneer Pharmacy Degree College, Nr. Ajwa Crossing, Vadodara, Gujarat, India*

Meshram Dhananjay - *Assistant Professor, Pioneer Pharmacy Degree College, Nr. Ajwa Crossing, Vadodara, Gujarat, India*

خلاصه مقاله:

In this work, a simple, rapid, accurate, precise, specific, and sensitive RP-HPLC method was developed and validated for the simultaneous estimation of the Sofosbuvir and Velpatasvir in bulk drug and pharmaceutical dosage form. The stationary phase used for the chromatographic separation was Hypersil BDS column C۱۸ column (۲۵۰ mm× ۴.۶ mm with the particle size of ۵ mm) andthe mobile phase used for the separation was methanol:phosphate buffer (pH۳) taken in ratio of ۷۵:۲۵%V/V. The flow rate was ۱.۰ mL/min at ۳۰ °C. The drugs were detected at the wavelength of ۲۶۰ nm. The retention time for the Sofosbuvir (SOFO) and Velpatasvir(VELP) were ۳.۷۱۴ and ۵.۲۶۳, respectively. The linearity was performed using the concentration range of ۲-۱۲ µg/mL of Sofosbuvir and ۰.۵-۳ µg/mL of Velpatasvir. The correlation coefficient was found to be ۰.۹۹۹ and ۰.۹۹۹, respectively. The % purity of the Sofosbuvir and Velpatasvir was found to be ۹۹.۰۱% and ۹۹.۲۵%, respectively. The proposed method was validated for specificity, linearity, precision, robustness and accuracy were within the range of acceptance limit according to ICH Q۲ (B) guidelines and the developed method can be employed for the routine quality control analysis in the bulk and combined pharmaceutical dosage form of Sofosbuvir and Velpatasvir.

کلمات کلیدی:

Sofosbuvir, Velpatasvir, HPLC