

Stability-Indicating RP-HPLC Method Development and Validation for Simultaneous Estimation of Gliclazide and Chromium Picolinate in Bulk and Formulations

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Abstract: Simultaneous determination of Gliclazide and Chromium Picolinate two component methods has been developed in methanol. In this method, the overlapping spectra of Gliclazide and Chromium Picolinate were well resolved by making use of the zero order spectra of their direct absorption spectra. The method was based on the measurement of absorbance of Gliclazide and Chromium Picolinate at 272.00nm, 262.00 nm and 272.05nm respectively. This method obeyed Beer's law in the concentration range of 0 to 120 µg/mL for Gliclazide and Chromium Picolinate. The method was validated as per the ICH guideline and accuracy, precision are found to be within the acceptable limit. The limits of detection and quantitation were found to be 0.023 and 0.070 µg/ml, respectively for Gliclazide, and 0.021 and 0.063 µg/ml, respectively for Chromium Picolinate. A simple, specific, accurate and precise Simultaneous Equation Method for three Components Spectrophotometric methods was developed and validated for simultaneous estimation of Gliclazide and Chromium Picolinate in synthetic mixture. This method is validated as per ICH Q2R1 Guidelines.

Keywords: Simultaneous determination, Gliclazide and Chromium Picolinate

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