Steady-state and synchronous spectrofluorimetric methods for simultaneous determination of aliskiren hemifumarate and amlodipine besylate in dosage forms

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Abstract

Aliskiren hemifumarate (ALS) and amlodipine besylate (AML) were simultaneously determined by two different spectrofluorimetric techniques. The first technique depends on direct measurement of the steady-state fluorescence intensities qh"CNU"cpf"CON"cv"535 po "cpf"674 po "wrqp"gzekvcvkqp"cv"4; 2"cpf"597 po." respectively, in a solvent composed of methanol and water (10: 90, v/v). The second technique utilizes synchronous fluorimetric quantitative screening of the g o kuukqp"urgevtc"qh"CNU"cpf"CON"cv"494"cpf"588 p o . "tgurgevkxgn { "wukpi" nm. Effects of different solvents and surfactants on relative fluorescence intensity were studied. The method was validated according to ICH guidelines. Linearity, accuracy and precision were found to be satisfactory in both techniques over the concentration ranges of 3637" and 20666 UiloN"hqt"CNU"cpf"CON."tgurgevkxgn{0"Kp" the first technique, limit of detection and limit of quantification were estimated and hqwpf"vq"dg"20478"cpf"20998 Ùilo N"hqt"CNU"cu" y gnn"cu"20289"cpf"20426 Ùilo N"hqt" AML, respectively. Also, limit of detection and limit of quantification were ecnewncvgf"kp"vjg"u{pejtqpqwu"ogvjqf"cpf"hqwpf"vq"dg"204;5"cpf"20::9 ÙiloN"hqt" CNU"cu" y gm"cu"20256"cpf"20325 Ùilo N"hqt"CON."tgurgevkxgn{0"Vjg" o gvjqfu" y gtg" successfully applied for the determination of the two drugs in their co-formulated tablets. The results were compared statistically with reference methods and no significant difference was found. The developed methods are rapid, sensitive, inexpensive and accurate for the quality control and routine analysis of the cited drugs in bulk and in pharmaceutical preparations without pre-separation. Copyright Í "4236"Lqjp" Y kng{" ("Uqpu."Nvf0"

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