Abstract

Telmisartan is an angiotensin receptor II blocker that is used worldwide for the treatment of hypertension and high blood pressure. Lipase-catalyzed esterification of octyl esters is a very important industrial procedure for the production of fragrances and fruity flavors. Lipase-catalyzed esterification of telmisartan and octanol was carried out in a solvent-free system. Lipase was extracted from Rhizopus oligosporus (fungi) under optimal conditions. Immobilization of commercial lipase was also performed by using the gel entrapment method. Activity of both lipases was calculated A mixture of 0.1M telmisartan,50mL of octanol, and 0.1g of lipase was prepared in an iodine flask and kept in a shaker for 48 hours at 37°C temperature. The sample of the mixture was taken out at the time intervals of 0 hours, 2 hours, 4 hours, 6 hours, 24 hours, and 48hours. Analysis of samples was done under FTIR spectroscopy and no peaks for ester were detected in any of the spectra which indicates that lipase was unable to perform esterification between telmisartan and octanol.