The thesis includes four chapters. Chapter I: compatibility of spiramycin with commonly used excipients in tablets. The work in this chapter included the preparation and storage of drug-excipient mixtures with subsequent evaluation of the possible interaction between the drug and the excipients through visual examination, testing of fresh and stored mixtures by DSC, IR, and TLC. Chapter II: formulation, evaluation, and stability of spiramycin capsules. Nine formulations were prepared and tested for their content uniformity, dissolution rate, and stability. Formulation 6 was chosen for further bioequivalence study. Chapter III: formulation, evaluation, and stability of spiramycin dispersible tablets. Twelve formulations were prepared and evaluated for their weight variation, content uniformity, friability, hardness, and disintegration. Formulation 5 was chosen for further bioequivalence study. Chapter IV: Antimicrobial activity and bioequivalence study of the selected spiramycin formulations. the relative bioavailability was 100%for formulation 6 capsules and 106% for formulation 5 dispersible tablets compared to the rovamycin.