In the present study, we tried to develop a suitable film preparation by employing ethyl cellulose (EC) and polyvinyl pyrrolidone (PVP) as a film former, and dibutyl phthalate (DBP) as a plasticizer. Furthermore, in order to improve the skin penetration of propranolol hydrochloride (PPL), terpenes such as menthol and cineole, and propylene glycol (PG) were employed as a chemical enhancer. The film preparations were characterized in physical properties such as uniformity of drug content, thickness and moisture uptake capacity. Release and skin permeation kinetics of PPL from film preparations were examined in the in vitro studies using a Franz-type diffusion cell. The uniformity of drug content was evidenced by the low SD values for each film preparation. The moisture uptake capacity and drug release rate increased with the increase of PVP in each preparation. Enhancers examined in the present study also increased the moisture uptake capacity and release rate of PPL from the film preparations. In vitro skin permeation study showed that cineole is the most promising enhancer among the enhancers examined in the present study and suggested that suitable compositions of film preparation would be EC:PVP:PPL = 6:3:4 with 10% w/w cineole and 7:2:4 with 10% w/w PG + 10% w/w cineole, which gave high skin permeation rate at 93.81 ± 11.56 and 54.51 ± 0.52 µg/cm² h, respectively.