A natural, moisturizing alcohol-based hand rub (ABHR) containing okra (*Abelmoschus esculentus*) polysaccharide was formulated to reduce the dryness caused by traditional hand-cleansing products. The ABHR developed also reduced infectious disease transmission. Preliminary evaluations of the stable natural hand hygiene preparations were conducted to determine preference and short-term moisturizing efficacy in volunteers. Formulations contained varying amounts of gelling agent (0.5% and 0.3% w/v). Accelerated stability testing using a centrifugation assay and six heating/cooling cycles of the ABHR bases were performed. Then, okra polysaccharide (5%, 7%, 10% and 15% w/w) was incorporated into the base, and stability tests were repeated. The moisturizing okra polysaccharide was compatible with the formulations at all concentrations. All of the formulated ABHRs were stable. Sensory evaluation was conducted in 36 volunteers. The two most preferred okra ABHRs were patch-tested in 12 volunteers; results indicated none of the preparations caused irritation. Efficacy of the most preferred moisturizing ABHR containing 0.3% gelling agent and 10% (w/v) okra extract was determined. Short-term moisturizing efficacy of a single application was examined in 20 volunteers. The okra ABHR hydrated skin significantly better than a control ABHR (*P*<0.005) at 30 min after application. Skin moisture was retained for 210 min of the observation period. Thus, the ABHR product containing moisturizing okra is safe, efficacious and possesses desirable properties. The formulation can be applied every 3 h for good hand hygiene with moisturizing efficacy [M. Kanlayavattanakul*, C. Rodchuea and N. Lourith (School of Cosmetic Science, Mae Fah Luang University, Chiang Rai 57100, Thailand), *International Journal of Cosmetic Science*, 2012, *34*(3), 280-283].