

Method for producing macroporous material based on gelatin and sodium alginate, according to which a 15–20% aqueous solution of gelatin is mixed with a 0.022% aqueous solution of polyhexamethylene guanidine hydrochloride and a 4% aqueous solution of sodium alginate, then a gel-forming composition is prepared with the addition of a structuring agent polyethylene glycol-400 diglycidyl ether and water, homogenizing it, and forming a hydrogel in a flat-parallel shape. Wherein, a 2–4% aqueous solution of chlorhexidine bigluconate is additionally introduced into the aqueous solutions of gelatin, polyhexamethylene guanidine hydrochloride, and sodium alginate. The gel-forming composition is homogenized in a disperser at a speed of 4000–5000 rpm until a stable gelatin-alginate foam is formed. The hydrogel is formed by freezing the gelatin-alginate foam in a flat-parallel mold for 24–48 hours at a temperature of  $-20\text{ }^{\circ}\text{C}$ , followed by its lyophilization at a reduced pressure of 10 Pa and a temperature of  $-55\text{ }^{\circ}\text{C}$  until all water is completely removed while preserving the macroporous structure.