

pattern and sequence may be different in commercial ALG depending on the source of seaweed used, harvesting season, and geographical location of the seaweed source [5]. The random sequence of M and G block chains (Figure 1.2) are composed of regions of alternating MG blocks whose monad, diad, and triad frequencies are determined. Rigid six-membered

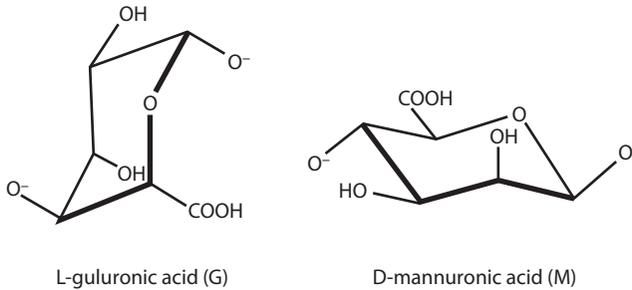


Figure 1.1 Structure of ALG monomers (L-guluronic acid and D-mannuronic acid).

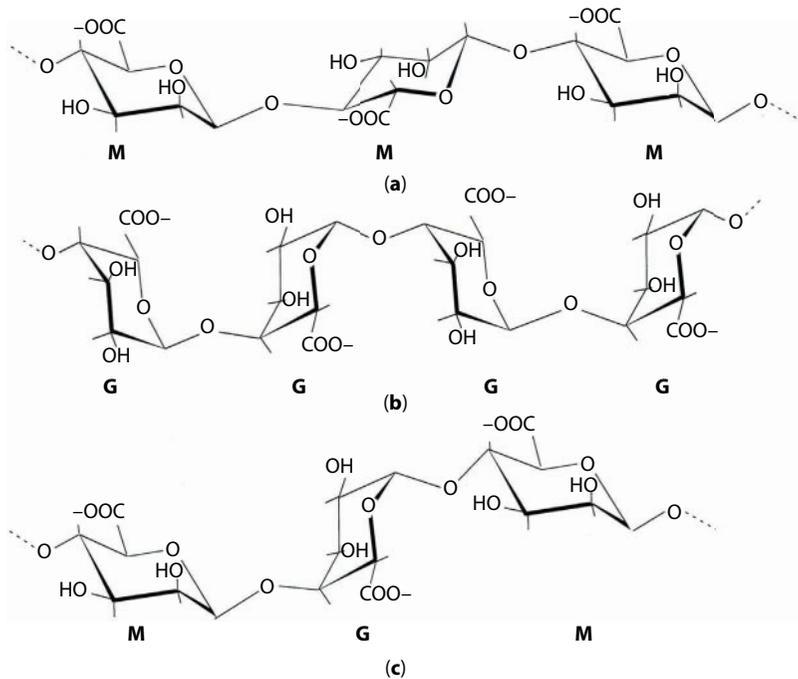


Figure 1.2 (a) Homopolymeric blocks of poly- β -1,4-D-mannuronic acid (MM blocks); (b) homopolymeric blocks of poly- α -1,4-L-guluronic acid (GG blocks); (c) heteropolymeric blocks of MG monomers in random pattern [6].