Biomolecules can be easily used in improvement of sensors, some electronical devices, biomedical implant modification and storing energy. Behaviors of biomolecules are searched with using either computer simulations or analytical methods. Adsorption of polymers on solid surfaces is one of these behaviors. The theoretical treatment of the adsorption of macromolecules within the framework of minimalist effective protein models in statistical mechanics has been longstanding problem that still gains a lot of interest [1,2,3,4]. In this study, we present the interaction between a chain and surface by using one of the effective off-lattice models of AB type [5] for polymers with N monomers. We calculated minimum energies, specific heats for a single chain's different sequences with multicanonical method. In this research we added a fixed surface in the simulation. For calculating new energy which occurs from interaction between surface and chain we used Lennard–Jones interaction parameters. We put the chain specific distance from the surface and we investigate minimum energies, specific heats and some structural parameters, radius of gyration, end–to end distance etc. for this new system.