

The Process of Opening (activation) of Ion Channels

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Ion channels of cell membrane are transmembrane protein complex structures, which permeates lipid bilayer in different positions. They have very an important role in the cell life. Ions channels allow the movement of ions across cell membranes, apply cell with energy and therefore fundamental physiological processes such as muscle contraction continues through the nervous system.

Questions of the functioning of ion channels are the main problem in biophysics of membrane processes and neurophysics, and the important task of the novel biotechnologies.

There is an assumption that the ion channel opening (activation) process is the result of mutually repulsive force, arising from the polarization process between of the helix subunits of protein component of coupled receptor ion channel. It contributes the unique configuration of protein subunits of receptor that provides between these subunits the mutually repulsive effect and the channel opening.