

Abstract:

In organisms, acidic pH occurs either in the intracellular or extracellular environment. Intracellularly an acidic pH is found in particular cellular compartments, such as early and late endosomes or lysosomes. In the extracellular space, the acidic pH is found in hypoxic tissues, or in tissues where inflammation or tumour growth occurs. The value of the pH is usually in the range of approximately from 5.5 up to 6.5. This work focuses on the description of the conformation changes of viral proteins, which occur due to a decreased pH and lead to escape of viral components from membrane compartments. Changes in pH in organelles of endocytic pathways as well as changes in extracellular pH affect significantly the infection of many viruses. Research on the role of pH during the viral can bring important information for the development of antiviral and anticancer treatment.

Key words: virus, conformation, pH, receptor, endocytosis