

# Interaction of DNA with proteins

Proteins bind to nucleic acids either relatively **non**-specifically (basic proteins ionically bind to dissociated phosphate groups), or **specifically**, when the protein recognizes a certain sequence of nucleotides as a binding site. The first type of interaction is important, for example, for the storage of long DNA in the chromosome, the second is, for example, in the regulation of the expression of genetic information.

DNA stores genetic information and passes it on to the next generation of cells or organisms. **The collection of all the DNA in a cell or virus** is called the genome. Individual DNA molecules are bound to structural and functional proteins in formations called chromosomes in bacteria and nuclear cells.

## Links

### Related articles

- Structure of nucleic acids
- Basic components of nucleic acids
- Primary structure of nucleic acids
- Cleavage of nucleic acid by hydrolysis
- Sequencing methods
- Secondary structure of DNA
- Denaturation of nucleic acids, molecular hybridization
- Secondary structure of RNA
- Topology of DNA
- Bacterial chromosome
- eukaryotic chromosomes
- Mitochondrial DNA
- Histone

Other chapters from the book **ŠTÍPEK, S.: Stručná biochemie uchování a exprese genetické informace**

### Resources

-