

NUCLEIC ACIDS

updated: July 7, 2024

En Español

Definition

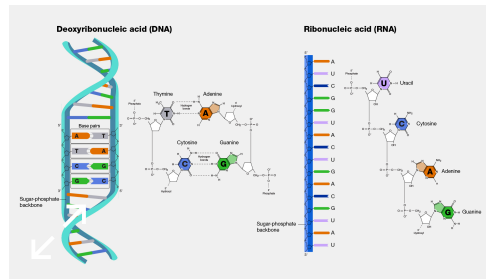


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Nucleic acids are large biomolecules that play essential roles in all cells and viruses. A major function of nucleic acids involves the storage and expression of genomic information. Deoxyribonucleic acid, or DNA, encodes the information cells need to make proteins. A related type of nucleic acid, called ribonucleic acid (RNA), comes in different molecular forms that play multiple cellular roles, including protein synthesis.



En Español

Narration



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Believe it or not, there are many songs devoted to nucleic acids. Something about them inspires art. I won't sing any of them, but I did first learn about nucleic acids through a song in chemistry class. Nucleic acids are made of nitrogen-containing bases, phosphate groups, and sugar molecules. Each type of nucleic acid has a distinctive structure and plays a different role in our cells. Researchers who first explored molecules inside the nucleus of cells found a peculiar compound that was not a protein or a lipid or a carbohydrate. It was new. The discovery of this molecule — nuclein, which upon further understanding became nucleic acid — set in motion the eventual discovery of DNA.

En Español



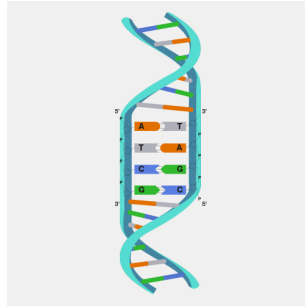
Sarah A. Bates, M.S., M.A.
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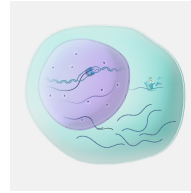
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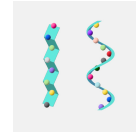
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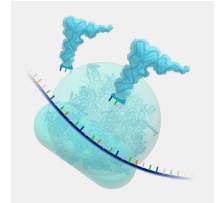
**Deoxyribonucleic
Acid (DNA)**



**Gene
Expression**



Protein



**Ribonucleic
Acid (RNA)**

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