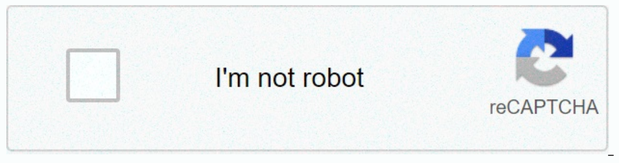

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Adn y arn similitudes

The similarity between DNA and RNA lies in the fact that these are nucleic acids involved in the processes of transmitting hereditary information from parents to children. Another similarity is that both have 4 nitrogen basesDifferent between DNA and RNA is:DNA is a molecule of a complex structure formed by two complementary chains in the form of a propeller. In contrast, RNA is a linear RNA chain that has a genetic code, instead DNA writes the genetic code DNA is found only in the nuclei, instead of RNA can be found in both the nuclei and cytoplasm. Delve into the topic in brainly.lat/task/10365822 Similarities: Two are in the nuclei. Differences: Perform different functions. DNA composition: deoxyribosis pentose, nitrogen base, Adenine, Guanine, Cytokine, Timine. Composition of RNA: ribose pentose, nitrogen base, adenine, guanine, cytosine and Timin. DNA Functions: Contains the necessary gene information for the living being to function and host. RNA functions: participates in the expression of information containing l'ADN using protein sintes that regulate most of the body's processes. The similarities between DNA and RNA are very few. The only similarity is that both are nucleic acids, molecules formed by the unification of the nitrogen base, pentose and phosphate group; although the pentosis and nitrogenous bases of DNA and RNA are different (ribose in RNA and deoxyribosis in DNA; and the bases are cytosine, guanine, adenine and timin in DNA, and in RNA they are cytosine, guanine, adenine and uracil). DNA and RNA are nucleic acids that control and direct protein synthesis in living beings' organisms. They contain the necessary instructions for each important process, so we could not imagine our existence without these molecules. Despite their morphological and functional similarities, there are many differences between DNA and RNA. These complex polymers resulting from the repetition of nucleotides include the functioning of all biological mechanisms and the identity of each species. As fascinating as the concept can be, no living being can be conceived without their genetic information. In this space, we are talking about the most important differences between the two key molecules of life. Differences between DNA and RNA: Between genetic levels Before listing the characteristics that distinguish nucleic acids, it is necessary to clarify the factors that will unify them. Among them are the following: Both are macromolecules formed by successive nucleotide combined phosphate bonds. The order and periodicity of the nucleotides that make up the molecules encode the information Body. They are responsible for inheriting characters from parents to children. Both have a high molecular weight. These are biopolymers, complex molecules produced by living organisms. As you can see, these two macromolecules are necessary to adapt living beings (including humans) to the environment. Without these polymers, there would be no transfer of genetic information from the stem cell to the post-letting cells, which would prevent a mechanism as important as evolution itself. In addition, both DNA and RNA are involved in the synthesis of proteins, the basic structural units of each living organism. Below are the most significant differences between DNA and RNA. 1. Structural differences For very complex molecules, both DNA and RNA have a specific three-dimensional structure that characterizes them. Structural differences vary. Below we list them. 1.1 Changes in nucleotide, as we have previously advanced, nucleic acids are polymers formed by a number of monomers, nucleotides. These molecules are each of the puzzles that make up both DNA and RNA, and in them we find the first fundamental differences. Depending on their organic nature, nucleotides consist of three segments: nitrogen bases: cyclic organic compounds, which depending on their nature are called guanine, cytosine, thyne, apennine and uracil. Pentose: sugar with five carbon atoms. Phosphoric acid: one to three molecules per nucleotide. This may sound like school lessons for us, but the fundamental difference between DNA and RNA is that the nitrogenous bases of the first nucleotides have adenine (A), guanine (G), cytosine (C) and timin (T), while in RNA uracil (U) takes the place of thyna. Another variation in nucleotide is that pentose RNA sugar is ribose, while DNA sugar is deoxyribosis, hence the corresponding R and D molecule names. Although they may seem like small assessments, these two small differences bring very different morphological characteristics from both macromolecules. 1.2 Simple propellers and chains Another key and easily recognizable difference between DNA and RNA is the three-dimensional organization of these nucleotide chains. Most DNA molecules consist of two anti-reamier chains connected by nitrogen bases, thanks to hydrogen bridges. This gives them a very distinctive form of helical, which is widely represented in all scientific media. Due to the complexity of the DNA has a primary, secondary, tertiary and qua tertiary structure, depending on its composition, type of rotation and packaging on chromosomes that contain genetic information of the body. RNA, although no less important, has a much simpler form. In this case, we are dealing with a macromolecule which, like DNA, consists of successive nucleotides, but there are no propellers or two anti-arm chains. RNA has only one chain, so it has only primary and secondary structural differences (in some special cases also tertiary, but not usually). Sometimes rna folds can form within the same thread, which can lead to morphological loops or nodules, but nothing compared to structural diversity and the level of packaging and condensation of DNA. 2. Diversity in their functionality In addition to structural issues limited to the field of biochemy, these two key macromolecules in the functioning of life have completely different functions. The main function of the DNA molecule is long-term storage. Metaphorically speaking, chromosomes would be libraries, and DNA in genes, each textbook on the functioning of the living being's body. This is what we know as the genome and defines us both at the species and individual level. In short, genes are structures formed by DNA, and in turn, the condensation of these produces chromosomes. Continuing the metaphor, RNA will be the librarian responsible for transforming DNA book information into specific structures. At the cellular level, this causes protein synthesis, an important process for any activity of the body. To perform this activity, RNA has three types of molecules: messenger RNA: an accurate translation of a segment of DNA that contains information to generate protein. RNA transfer: Transports each of the subunits that cause the formation of protein. Ribosomal RNA: they are part of ribosomes, machines in which proteins are produced. In this way, we can observe the assembly chain perfectly arranged by different types of APN. One molecule is responsible for translating the information present in the DNA, another is part of the assembly machine, and the other is responsible for bringing in the various components that will give rise to the protein. Although we find this amazing, this delicate process takes place constantly at the cellular level throughout our body. This commitment to immediate functionality causes RNA concentrations (especially messenger type) to change frequently depending on the type of stimulus that the living being perceives. the more specific protein is needed, the more RNA coding will be needed. 3. Mutations and evolution From an evolutionary point of view, the last of the differences between DNA and RNA is its exchange rate. Processes of genetic mutations are necessary in nature and in human society, because they create hereditary forms that can be both deletarian and beneficial to the living being who suffers them. Naturally hereditary mutations in genetically complex beings occur in DNA. Another case is viruses, which can consist of both DNA and RNA. Because RNA molecules are very unstable and there are no bug fixes during replication, there are several changes to this information during the production of new viruses. This causes RNA viruses to usually mutate faster than DNA viruses. This difference between the two molecules is essential because it puts key pressure on the evolution of diseases. The question of genes, as we have seen, although DNA is generally considered the most important molecule for the functioning of living beings, is not the only one. RNA is the employee responsible for translating genetic information, and without structures as simple as proteins, life, as we know, would not be possible. DNA is organized in a more complex way into genes and chromosomes that store genetic information in the long run, while RNA is responsible for protein formation, and when its function is performed, it degrades. Despite these differences, both DNA and RNA are key essential molecules in the survival and form of living beings. 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