

Introduction

All cellular activities are encoded within a cell's DNA

The sequence of bases within a **DNA** molecule represents the genetic information of the cell. Segments of DNA molecules are called genes, and individual genes contain the instructional code necessary for synthesizing various proteins, enzymes, or stable RNA molecules

The full collection of genes that a cell contains within its genome is called its genotype. However, a cell does not express all of its genes rapidly. Instead, it turns on (expresses) or turns off certain genes when necessary