

Role of Various Nucleic Acids in Gene Expression

Nucleic Acid	Structure	Function
DNA	Double helix	Stores genetic information that is copied into mRNA during transcription
mRNA	Linear single strand	Carries genetic information from DNA to the ribosomes; in eukaryotes, mRNA is processed before it moves to the cytoplasm for translation
tRNA	Lobed shape	Carries a particular amino acid to the correct mRNA codon site during translation
rRNA	Linear single strand	Combines with a complex of proteins to form ribosomes, which bring together the mRNA strand and tRNA molecules during translation