

## \* Major feature of mitochondrial DNA

- circular
- Double stranded
- composed of heavy (H) & light (L) chain
- Encode 13 protein subunit of respiratory chain
  - 7 Subunit - NADH dehydrogenase (complex I) (It called)
  - Cytochrome b of complex III
  - 3 subunit of Cytochrome oxidase (complex IV) (It called)
  - 2 subunit of ATP synthase
- Encode large (16S) & small (12S) mt ribosomal RNAs.
- Encode 22 mt tRNA molecules.
- genetic code differ slightly from standard code
  - code - UGA is read as Trp
  - AGA & AGG read as stop codon (Codon for arginine)
- contain very few untranslated sequences
- High mutation rate - etc
- Comparison of mtDNA sequence provide evidence about evolutionary origin of primates & other species
- NO introns
- NO proof reading activity