

# Comparative Genomics Across Species

Organism	Estimated size »	Estimated genes	Average gene density	Chromosomes
■ <i>Homo sapiens</i> (human)	2900 million bases	~30,000	1 gene per 100,000 bases	46
■ <i>Rattus norvegicus</i> (rat)	2,750 million bases	~30,000	1 gene per 100,000 bases	42
■ <i>Mus musculus</i> (mouse)	2500 million bases	~30,000	1 gene per 100,000 bases	40
■ <i>Drosophila melanogaster</i> (fruit fly)	180 million bases	13,600	1 gene per 9,000 bases	8
■ <i>Arabidopsis thaliana</i> (plant)	125 million bases	25,500	1 gene per 4000 bases	5
■ <i>Caenorhabditis elegans</i> (roundworm)	97 million bases	19,100	1 gene per 5000 bases	6
■ <i>Saccharomyces cerevisiae</i> (yeast)	12 million bases	6,300	1 gene per 2000 bases	16
■ <i>Escherichia coli</i> (bacteria)	4.7 million bases	3,200	1 gene per 1400 bases	1