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Yeast Artificial Chromosome (YAC)

National Human Genome Research Institute (NHGRI)

Source

National Human Genome Research Institute (NHGRI). *Yeast Artificial Chromosome (YAC)*.

Yeast artificial chromosome (YAC) is a human-engineered DNA molecule used to clone DNA sequences in yeast cells. YACs are often used in connection with the mapping and sequencing of genomes. Segments of an organism's DNA, up to one million base pairs in length, can be inserted into YACs. The YACs, with their inserted DNA, are then taken up by yeast cells. As the yeast cells grow and divide, they amplify the YAC DNA, which can be isolated and used for DNA mapping and sequencing.