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# ATAC-Seq

National Cancer Institute

## Source

National Cancer Institute. *ATAC-Seq*. NCI Thesaurus. Code C156056.

A molecular genetic technique that isolates and sequences chromosomal regions that are rich in open chromatin. First, nuclei are harvested from a cellular sample. Then a hyperactive Tn5 transposase is added to the nuclei where it excises non-nucleosomal DNA strands and ligates co-administered high-throughput sequencing adapters (tagmentation). The tagged DNA fragments are isolated, amplified by PCR and sequenced. The number of reads for specific region of DNA correlate with increased chromatin accessibility and this method can identify regions of transcription factor and nucleosome binding.