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FAIRE-Seq

National Cancer Institute

Source

National Cancer Institute. *FAIRE-Seq*. NCI Thesaurus. Code C106051.

A molecular genetic technique that depletes a biological sample of nucleosomal DNA and then subjects the non-nucleosome-associated DNA to next-generation sequencing. Since nucleosome disruption of chromatin is indicative of active sites of DNA transcription, this technique can isolate DNA sequences that are involved in transcriptional regulation. First, a sample is treated with formaldehyde to form DNA-protein crosslinks, followed by sample lysis and sonication. The processed sample is subjected to phenol/chloroform extraction and the DNA in the aqueous phase is analyzed using next-generation sequencing techniques.