

# Biotechnology assignment assignment

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These sites are an example of hyphenated sites. The longer the DNA molecule, the greater of a possibility that a given recognition site will occur. That's why human chromosomal DNA (contains three billion base pairs) has many more recognition sites than a plasmid DNA. (plasmid DNA have only several thousand base pairs. Large DNA is extremely difficult to isolate intact, therefore during handling it is randomly sheared to fragments in the range between 50, 000-100, 000. Plasmids and several viral Dana, are circular molecules.

If a circular DNA contains one recognition site for one restriction enzyme, than it will open to form a linear DNA molecule. If a linear DNA molecule contains a single recognition site, then when cleaved it will generate two fragments. The sizes of these fragments depend on how far the distance between each site is from each other. If the DNA molecule contains several recognition sites for a restriction site, than under experimental conditions, it is possible that specific sites will cleave and others wont.

The incompletely cleaved fragments of DNA are called partials. Partial are able to arise If low amounts of enzyme are used or the reaction is stopped after a short time. Circular Dana such as plasmids are supercilious. A supercilious DNA has more of a compact and entangled shape. When cleaved It unravels to a linear form. Under the electrophoresis condition, the supercilious DNA migrates faster than Its linear form and linear DNA migrates faster than Its nicked circular form. " Nicks" will convert spherical DNA. Dimmer has two rings, and Trimmer has three rings.

BioTechnology Essay By preponderances Restriction enzymes are named according to the organism that they are kept in. The way that they create the name is to use the first letter of the genus, and after the of a certain species that can produce restriction enzymes. A roman-numeral is always requires a specific double-strand recognition sequence of nucleotides to cut DNA. (usually 4-8 base pairs in lengths) Cleavage happens within or near the site; its positions are usually pointed out with arrows. Recognition sites are mostly symmetrical.

When DNA strands in the site have the same base sequence are called SST always be separated by 5 base pairs of DNA, otherwise the enzyme can't experimental conditions, it is possible that specific sites will cleave and others won't. Arise if low amounts of enzyme are used or the reaction is stopped after a short time. Compact and entangled shape. When cleaved it unravels to a linear form. Under the electrophoresis condition, the supercilious DNA migrates faster than its linear form and linear DNA migrates faster than its nicked circular form. " Nicks" will convert spherical DNA. Dimmer has two rings, and Trimmer has three rings.