Enzyme used in Gene technology

Name of the enzyme	function
Alkaline Phosphatase	Remove phosphate from DNA 5' side
Bal 31 Nuclease	Reduce the DNA size
[redacted]	
RNase A	Cutting RNA and destruction
RNase H	Removal of RNA from DNA-RNA hybrid
Gamma. exo nuclease	Removal of nucleotide from DNA 5' side

Recombinant DNA Technology :-

A recombinant DNA molecule is produced by joining together two or more DNA segments usually originating from different organisms. More specifically a recombinant DNA molecule is a vector (e.g. a plasmid, virus) into which desired DNA fragment has been inserted to enable its cloning in an appropriate host. This is achieved by using specific enzymes for cutting the DNA into suitable fragments and join together the appropriate fragments. In this manner, a recombinant DNA molecule may be produced.

Recombinant DNA molecules are produced with one of the following three objectives

i) To obtain a large number of copies of DNA fragments.

ii) to recover large quantities of the protein produced by the concerned gene.

iii) to integrate the gene in question into the chromosome of a target organism where it expresses itself.

DNA segments are integrated into an autonomously replicating DNA molecules called vectors, most commonly used vectors are either bacterial plasmids or DNA viruses. All these steps concerned with piecing together DNA segments of diverse origin and placing them into a suitable vector together constitute recombinant DNA technology.