



Across

1. Region of DNA where an active repressor protein can bind to block (repress) transcription.

6. A change in the nucleotide sequence of DNA (or RNA in some viruses); a characteristic of life.

Down

2. Colony color on EMB, T7, MAC and TSA; influenced by genes present and variation in environment.

3. An amino acid; this serves as a corepressor for the tryptophan biosynthesis operon.

Across

8. Cyclic version of this regulatory nucleotide can bind with CAP, and the complex will make promoter sites attractive to sigma factors.
10. Transcription is this when multiple genes are transcribed together into one long m-RNA.
12. Total DNA content of the chromosomes present within an organism; includes genes and intergenic regions.
14. The location of a gene on a chromosome; transposase enzymes can cause this to change.
15. Region of DNA containing a promoter, an operator and a series of structural genes.
16. Catabolite _____ is a mechanism allowing bacteria to use constitutive enzymes in favor of inducible ones.
17. A substitution type point mutation that causes no change in the amino acid sequence.
18. The addition or deletion of one base in a DNA molecule will result in this type of mutation.

Down

4. Will experience spontaneous mutation about once per 100 million replication cycles.
5. This disaccharide is the inducer for the lactose utilization operon.
6. A substitution type point mutation resulting in a codon that encodes a different amino acid.
7. A segment of DNA that can initiate its own translocation within or between chromosomes.
9. Region of DNA where the sigma factor of RNA-polymerase binds to begin transcription.
11. The lactose utilization operon is this, because transcription is usually "off", but can be turned "on".
12. A structural _____ is a segment of DNA that can be expressed as a polypeptide.
13. A substitution type point mutation that results in the formation of a terminator codon.