

Definitions-Biology

1 Enhancers

An Enhancer is a short (50-150bp) region of DNA that can be bound with proteins to activate transcription of a gene or genes. These proteins are usually referred to as transcription factors. Enhancers are discrete DNA elements that contain specific sequence motifs with which DNA-binding proteins interact and transmit molecular signals to genes [1].

Enhancers increase transcription of genes in a manner that is independent of their orientation and distance relative to the RNA start site [1]

2 Promoters

Promoters (or core promoters) are located within ± 40 nucleotides from the RNA start site [1].

References

- [1] Elizabeth M. Blackwood and James T. Kadonaga. Going the distance: A current view of enhancer action. *Science*, 281(5373):60–63, July 1998.