

Mechanism of Interferon-Beta Enhanceosome

Activating Transcription

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Enhanceosome is a transcriptional protein that controls the expression of interferon-beta gene. This experiment indicates that Interferon-beta enhanceosome increases the assemble rate of pre-initiation complex at the promoter by recruiting CBP-Pol• enzyme, in order to activate the transcription of interferon-beta gene. Experiments on the extract shows that removing CBP-Pol• holoenzyme from the extract can cause deceleration of transcriptional rate. Presence of enhanceosome only increases the number of functional pre-initiation complex, and CBP-Pol• holoenzyme increases the rate of transcription. Therefore, both enhanceosome and enhanceosome caused recruitment of CBP-Pol• are important for activating interferon-beta gene and reacting to viral infection