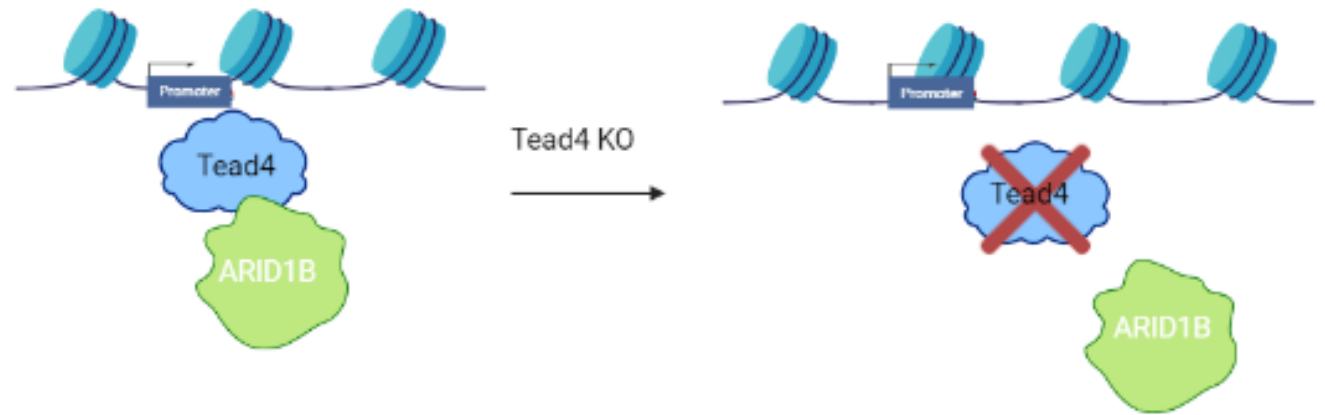


The Effect of Losing a Transcription Factor on Chromatin Remodeling Complexes



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Research questions and its Importance

- Since the transcription factor Tead4 recruits the ARID1B SWI/SNF subunit located in the BAF complex, would knocking out Tead4 result in the loss of ARID1B?
- The importance of this research is to develop a better understanding about the SWI/SNF complex. This complex plays a crucial role in changing nucleosome spacing and thus allowing transcription to be carried on. In addition, they have tumor suppression activity where it was found that in many cancer cell lines, lack of their expression form a gene mutation that often involves the SWI/SNF complex.

Research Results and its Importance

- There was a knockout score of 12% which represents the proportion of cells that have the Tead4 deletion mutation.
- These results confirms the initial hypothesis that links the expression of ARID1B to Tead4.
- Every peak in this graph represent a different nucleotide. Well-defined, normal, peaks can be seen on the left. However, once the guide CRISPR complex is bound and cleavage takes place, the mutated sequence starts to be observed in the form of overlapped peaks and background noise.

