In the processes of gene transcription and regulation, Sac3 plays a role in controlling gene activity. Here are the key points:

1. **Inactive Gene**
   - Random-walk with transient NPC interaction, 
     *non-productive*
   - Sac3 interacts with the nucleolus and cytoplasm, but the gene remains inactive.

2. **Activated Gene**
   - Random-walk with transient NPC interaction, 
     *gene-capture*
   - mRNA binding proteins/export factors are involved in capturing the gene activity.
   - Sac3 continues to interact with the nucleolus and cytoplasm, facilitating gene expression.

3. **Gene Constrained at the NPC**
   - Gene constrained at the NPC via active transcription and Sac3
   - This mechanism ensures that the gene expression is regulated and controlled.

Transcriptional Activation is the process that leads to the activation of genes, which is critical for cellular processes and functions.