

# The Role of Phosphoinositides in Chromatin Remodeling

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Phosphoinositides (PIs), small, negatively charged phospholipids, have been shown to play key roles in several physiological and pathological processes, such as membrane trafficking and cell signalling. Apart from their presence within membranes, they also exist in the cell nucleus. Several studies have reported the involvement of phosphoinositides and their related enzymes in transcriptional control and chromatin remodeling. In this study, we are focusing on two chromatin-associated proteins - histone deacetylase-1 (HDAC-1) and barrier-to-autointegration factor (BAF), and their possible association with phosphoinositides. We have detected interaction of both proteins with several members of the PI family using biochemical approaches and confocal, as well as super-resolution microscopy. In the future steps, we will further assess which parts of the proteins are responsible for the PI binding, and elucidate the physiological context of this interaction.

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