

Abstract

Until now, a lot of information have been obtained about the role of Src family kinases in the cytoplasm or at the plasma membrane and their interactions with growth factor receptors or focal adhesion complexes. Their functional importance at the perinuclear membrane, or even inside the nucleus, however, has not been well characterized. This work, using available information, pointed at the fact that Src family kinases can be found in the nucleus. This opens a new field of Src kinases action, such as in RNA metabolism, considering that it has been assumed that their activity is limited to the cytoplasmic compartment. This work summarizes the current knowledge that hints to Src family kinases dependent network of regulation of RNA metabolism; Src family kinases have pleiotropic effects not only on the RNA binding proteins, but also on the remodeling of chromatin structure. These kinases affect by direct interactions with other proteins transport, splicing or RNA stability and gene expression. This summary suggests that Src family kinases could regulate RNA metabolism on many levels.