Protein phosphorylation can be considered the most prevalent mechanism by which eukaryotic cellular events are regulated, and phosphorylation of tyrosine residues in proteins has been directly implicated in the regulation of cell growth, differentiation, and transformation. A repertoire for mitogenic hormones and growth factors are tyrosine kinases. Their signal is transduced by a variety of adapter proteins interacting with one another through binding modules (SH2, SH3, WW, PH, PDZ, etc.) implicated in the regulation of cell growth, differentiation and transformation. Receptors for mitogenic hormones and growth factors are tyrosine kinases. Their signal is transduced by a variety of adapter proteins interacting with one another through binding modules (SH2, SH3, WW, PH, PDZ, etc.) implicated in the regulation of cell growth, differentiation and transformation.