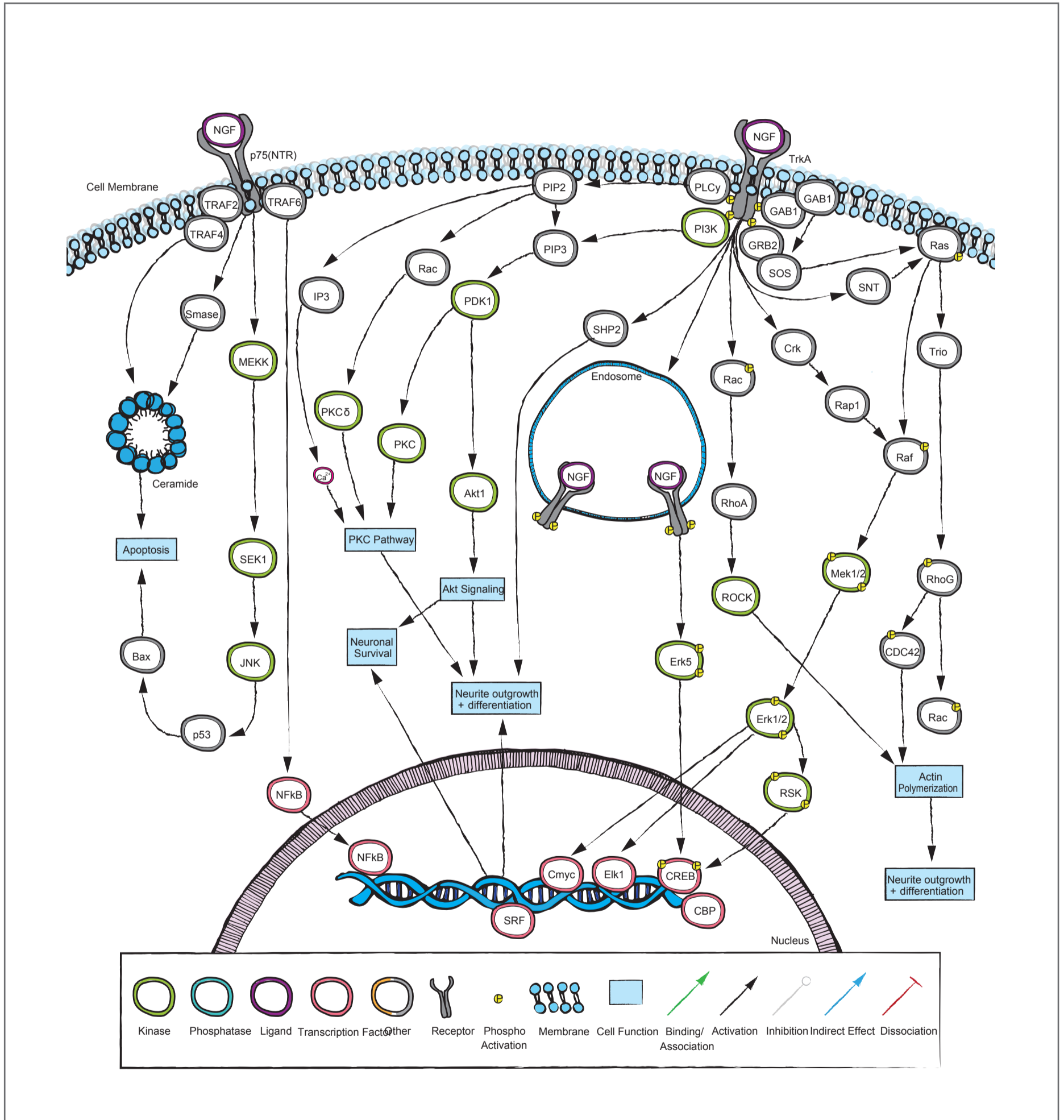


Nerve Growth Factor Pathway



Nerve growth factor(NGF) was discovered over 50 years ago as a neurotrophin that promotes survival and differentiation of sensory and sympathetic neurons. The effects of NGF are regulated by TRKA and p75(NTR). The activation of TRKA leads to a cascade of intracellular actions which result in changes in the expression of genes encoding enzymes, ion channels, and other cellular components. The binding of NGF to p75 activates a survival pathway that involves activation of NF-kB or the JNK/c-Jun death pathway. NGF is a very potent growth factor and plays an essential role in the health and well-being of the nervous system.