Apoptosis involves a family of proteins called caspases. In apoptosis a cascade of caspases is activated.

Once an imitator is activated, many executioner caspases can be activated by the cleaving of pre-domains which are then discarded.

BCL2 proteins are responsible for the intracellular activation of apoptosis. E.g. bax, bac

Note that the BCL2 family consists of both pro-apoptotic factors as well as anti-apoptotic factors—it is the balance between these that determine whether apoptosis will occur or not.

IAPs, BCL2 family and survival factors regulate apoptosis.

Survival factors work in 3 ways to increase survival/suppress apoptosis:

1. Increase the production of anti-apoptotic BCL2 protein
2. Inactivate pro-apoptotic protein
3. Inactivate anti-IAPs