Rap1 (Ras-proximate-1 or Ras-related protein 1) is a small GTPase, which are small cytosolic proteins that act like cellular switches and are vital for effective signal transduction.

There are two isoforms of the Rap1 protein, each encoded by a separate gene, RAP1A and RAP1B. Rap1 belongs to Ras-related protein family.

GTPases are inactive when in their GDP-bound form, and become active when they bind to GTP. GTPase activating proteins (GAPs) and guanine nucleotide exchange factors (GEFs) regulate small GTPases, with GAPs promoting the GDP-bound (inactive) form, and GEFs promoting the GTP-bound (active) form. When bound to GTP, small GTPases regulate myriad cellular processes. These proteins are divided into families depending on their protein structure, and the most well studied is the Ras superfamily, of which Rap1 is a member. Whereas Ras is known for its role in cell proliferation and survival, Rap1 is predominantly involved in cell adhesion and cell junction formation. Ras and Rap are regulated by different sets of guanine nucleotide exchange factors and GTPase-activating proteins, thus providing one level of specificity.