

Mezenchymal migration strategy is a mode of individual cell invasion, along with an ameboid migration strategy. It is dependent on cell adhesion structures formation and traction forces generation. This work is focused on integrin-mediated cell to extracellular matrix connections called focal adhesions. Focal adhesions are very complex and comprise of many proteins. The clusters of integrin dimers make up the focal adhesion core that binds extracellular matrix. Their intracellular domains indirectly interact with actin stress fibres through plaque proteins talin and vinculin. Focal adhesion assembly is force dependent and its components turnover is also regulated by focal adhesion kinase and prolin-rich tyrosin kinase 2. These kinases are probably recruited to focal adhesions by paxillin and then linked to signaling complexes by adaptor proteins as p130Cas. The 3D structure is what defines the options of interaction among participating proteins. Therefore, this work summarizes 3D structures of six proteins of interest, deals with their interactions and impact on focal adhesions. PDB codes of all available structures of these six proteins are enclosed.