NOTCH2 cell spreading adhesion focal adhesion

Answer

Notch2 plays a crucial role in cell spreading and adhesion (Murata et al. 2014). The Notch2 receptor is a member of the Notch family, which has been shown to function as cell adhesion molecules (Murata et al. 2014). Notch2 has been found to enhance the adhesion of MCs (megakaryocytes) to OP9-Dll1, -Dll4, -Jag1, or -Jag2 in a Notch receptor-ligand interaction-dependent manner (Murata et al. 2014). The adhesion of MCs is blocked by the presence of EGTA, a selective chelating agent for Ca2+, and by competitive inhibition with soluble DLL4-Fc (Murata et al. 2014). Furthermore, the adhesion of MCs is significantly inhibited by the addition of antagonistic monoclonal antibodies (mAbs) against Dll1 or Dll4 (Murata et al. 2014). Notch2 is also involved in the regulation of focal adhesion integrity, and its phosphorylation by protein kinase C may play a role in promoting the disassembly of focal adhesions and stress fibers in BSC-1 cells treated with TPA (Turner et al. 1989). However, the specific phosphorylation of talin by protein kinase C in BSC-1 cells treated with TPA may be an important factor in promoting the disassembly of focal adhesions and stress fibers (Turner et al. 1989). The loss of talin and vinculin from focal adhesions, which parallels stress fiber disruption in two cell types following specific drug treatments, does not involve proteolytic cleavage of either protein (Turner et al. 1989).

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References

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