Resistin promotes MMP-2 production and migration in human chondrosarcoma cells through AMPK/p38 pathways.

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Abstruse

Tumor malignancy is associated with several cellular properties including proliferation and ability to metastasize. Resistin the most potent pro-inflammatory and plays a crucial role in migration and metastasis of human cancer cells. We found that treatment of human chondrosarcoma (JJ012 cells) with resistin increased migration and expression of matrix metalloproteinase (MMP)-2. Resistin-mediated cell migration and MMP-2 expression were reduced by pretreatment with inhibitors of AMP-activated protein kinase (AMPK) and p38 mitogen-activated protein kinases (p38) as well as the AMPK inhibitor and the p38 inhibitor. In addition, resistin treatment induced phosphorylation of AMPK and p38. Taken together, these results suggest that resistin activated AMPK/p38 resulting in increased MMP-2 expression and migration in human chondrosarcoma cells.