Inhibition of Cell Motility

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Technology description

Summary

The present invention relates to a method of inhibiting cell motility induced by hepatocyte growth factor (HGF) and treating various diseases in a mammal. HGF stimulates mitogenesis, motogenesis and morphogenesis in a wide range of cellular targets including epithelial and endothelial cells, hematopoietic cells, neurons, melanoytes, and hepatocytes. These pleiotropic effects play important roles during development and tissue regeneration, but they are also implicated in several human cancers, including colon, breast, lung, thyroid and renal carcinomas, several sarcomas and gliolastomas. The ability of HGF to initiate a program of cell dissociation and increased cell motility coupled with increased protease production promotes aggressive cellular invasion and is linked to tumor metastasis. The methods of the present invention employ compounds, e.g., phosphotyrosine mimetics, to inhibit cell motility. A key advantage of this invention is that the peptides are free of cytotoxicity. Further development and use of this invention could serve a serious public need.

Institution

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