

# 学位論文の要旨

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主論文の題名			
High TrkB expression levels are associated with poor prognosis and EMT induction in colorectal cancer cells			
主論文の要旨			
<p>The neurotrophic receptor tropomyosin related kinase (TrkB) is associated with tumor progression in neuroblastoma and certain human malignancies. Recent reports indicate TrkB may participate in the epithelial–mesenchymal transition (EMT). This study investigates whether TrkB expression is associated with the clinical outcome of colorectal cancer (CRC) patients and whether TrkB induces EMT in CRC cells. TrkB and E-cadherin expression in surgical tissue samples and clinicopathological data from 102 CRC patients were analyzed by real-time polymerase chain reaction and immunohistochemistry. The biological role of TrkB in CRC was analyzed using RNA interference against TrkB in the CRC cell line SW480 to assess tumor progression and the correlation between TrkB and E-cadherin expression. Patients with high TrkB mRNA expression had a poorer prognosis relative to those having low TrkB levels. TrkB was inversely correlated with E-cadherin at both the mRNA and protein levels. In vitro, cell proliferation, migration and invasion were significantly inhibited by TrkB knockdown while the anoikis rate increased in TrkB siRNA-transfected cells compared to control. E-cadherin expression in TrkB siRNA-transfected cells was higher than in control cells and vimentin was lower conversely. These results indicate TrkB could induce EMT and play an important role in CRC progression to metastasis.</p>			

(注) 2, 000字以内にまとめて記入すること。