

A Non-canonical Wnt Signature Correlates With Lower Survival in Gastric Cancer

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Abstract

Genetic evidence suggests a role for the Wnt/ β -catenin pathway in gastric cancer. However, Wnt5a, regarded as a prototypical non-canonical Wnt ligand, has also been extensively associated with this disease. Therefore, the roles of the Wnt signaling pathway in gastric cancer initiation and progression, and particularly the precise mechanisms by which the non-canonical Wnt pathway might promote the development and progression of gastric cancer, are not entirely well understood. This article analyzes publicly available gene and protein expression data and reveals the existence of a WNT5A/FZD2/FZD7/ROR2 signature, which correlates with tumor-infiltrating and mesenchymal cell marker expression. High expression of FZD7 and ROR2 correlates with a shared gene and protein expression profile, which in turn correlates with poor prognosis. In summary, the findings presented in this article provide an updated view of the relative contributions of the Wnt/ β -catenin and non-canonical Wnt pathways in gastric cancer.

Author keywords

EMT

Frizzled-2

Frizzled-7

gastric cancer

Ror2

Wnt

Wnt5a