Abstract

TCF4 (T-Cell Factor 4, sometimes also TCF7L2) is an important effector of the canonical Wnt signalling pathway. The transcription factor is produced in many different isoforms with tissue-specific expression and diametrically opposing functions. In the intestine, TCF4 is a key factor in epithelial regeneration and maintenance of stem cell homeostasis. Its depletion causes loss of the proliferating crypt compartment and complete breakdown of the intestinal mucosal architecture. The processes in which it acts are therefore vital and must be strongly regulated by the Wnt signalling pathway. Disturbances in TCF4 expression or alternative splicing often lead to a wide range of complex pathologies such as colon cancer, ileal Crohn's disease and type 2 diabetes mellitus.