T315誘發口腔癌細胞之G2/M細胞週期停滯

T315 induces G2/M cell cycle arrest in human oral squamous carcinoma cells

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Integrin-linked kinase (ILK) is a β1-integrin cytoplasmic domain interacting protein, and functions as a scaffold in forming multiprotein complexes connecting integrins to the actin cytoskeleton and signalling pathways. ILK represents a relevant target for cancer therapy in light of its role in promoting oncogenesis and tumor progression. T315 acts a potent ILK inhibitor, which exhibited high *in vitro* potency against a panel of prostate and breast cancer cell lines. Here, the anti-tumor effects of T315 were investigated in oral cancer cells.

In this study, flow cytometric analysis indicates increased reactive oxygen species production and G2/M arrest in response to T315 in HSC-3 oral cancer cells. Western blot analysis revealed the ability of T315 to target the biomarkers related to cell cycle progression, including p21, cdc25, and cdc2. Moreover, this drug treatment led to the concomitant formation of LC3B-II, indicative of autophagy. Taken together, these findings suggests that the role of T315 in oral cancer cell growth.

Keywords : T315, oral cancer, cell cycle arrest