

## ABSTRACT

Hepatocellular carcinoma (HCC) poses a significant challenge in clinical management due to late-stage diagnosis and limited curative interventions. The imperative to develop more efficacious therapeutic approaches for HCC underscores the exploration of oncolytic virotherapy, an innovative treatment modality exhibiting promising antitumor properties. Among potential oncolytic vectors, the measles virus has garnered attention for its potential in treating liver cancer, specifically HCC. In this investigation, we assessed the oncolytic properties of the measles virus against HCC cells utilizing cytotoxicity assays, western blot analysis, and flow cytometry. The results reveal that at MOI 1 and 5, the measles virus induces heightened apoptosis, leading to increased cell death in Huh-7 HCC cells. These findings underscore the substantial potential of oncolytic measles virus for further advancement as a promising treatment strategy for hepatocellular carcinoma.

**Keywords:** Hepatocellular carcinoma (HCC); oncolytic virotherapy; measles virus; cytotoxicity assay; western blot analysis; flow cytometry