Abstract

Provided are an oncolytic virus, a preparation method thereof, the use thereof and a medicine thereof, wherein the genome of the oncolytic virus includes the following exogenous elements: (1) a first expression cassette containing a first promoter and a first interfering RNA expression sequence; (2) a target sequence; and (3) a second expression cassette. The replication of the oncolytic virus is regulated and controlled by exogenous elements inserted into the genome sequence thereof; by means of the regulation and control by the exogenous elements, the oncolytic virus can be selectively replicated in different types of cells, and thus, second cells, that is, target cells (such as tumor cells), can be selectively killed, and first cells, that is, non-target cells (such as normal cells), are not damaged.