ALPHAVIRUS REPLICON PARTICLE

ABSTRACT

Provided is an alphavirus replicon particle (ARP), which comprises (i) alphavirus structural proteins comprising capsid and/or envelope, and (ii) an alphavirus replicon comprising a polynucleotide encoding alphavirus non-structural proteins nsp1, nsp2, nsp3 and nsp4 and at least one gene of interest wherein at least one of capsid, and E3 and E2 in the envelope comprise one or more amino acid alteration but E1 in the envelope comprises no amino acid alteration.

Fig. 1