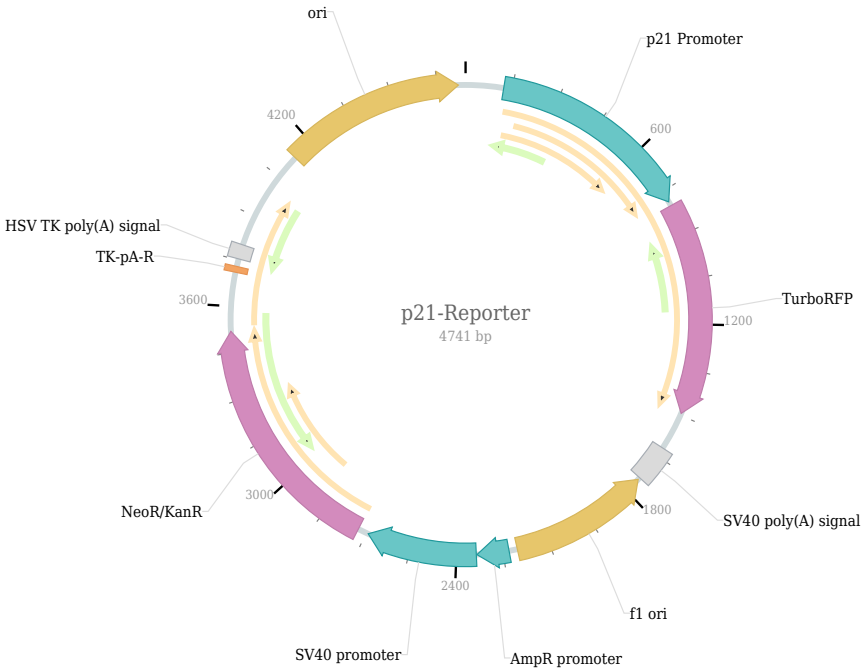
p21-Reporter

Vector ID	V000933
Antibiotic Resistance	Kanamycin
Length	4741 bp
Vector Type	Mammalian Expression

Product Information

Replication Origin	ori
Selection Marker	Neomycin (select with G418)
Copy Number	High Copy
Promoter	13X repeated p21-p53 response element
5' Primer	SV40pro_F_primer
Growth Strain(s)	Top10
Comment	This reporter plasmid drives TurboRFP expression under the full-length p53-responsive p21 promoter. It emits red fluorescence specifically upon p53 pathway activation triggered by DNA damage from chemicals, UV, nanoparticles or ROS. Stable clones with G418 resistance enable non-invasive, high-throughput genotoxicity quantification via microscopy or flow cytometry. This vector is tailored to assess sublethal DNA harm induced by microscale and nanoscale biomaterials.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.