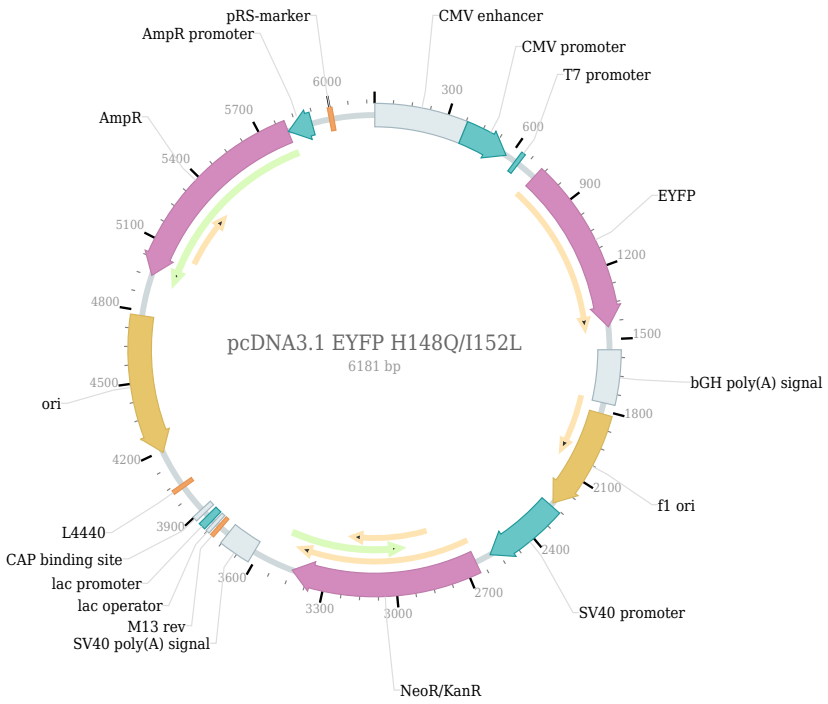
pcDNA3.1 EYFP H148Q/I152L

Vector ID	V001203
Antibiotic Resistance	Ampicillin
Length	6181 bp
Vector Type	Mammalian Expression

Product Information

Replication Origin	ori
Source/Author	Peter Haggie Lab
Selection Marker	Neomycin (select with G418)
Copy Number	High Copy
Promoter	SV40
Cloning Method	Restriction Enzyme
5' Primer	CMV-F
3' Primer	BGHrev
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	The plasmid vector pcDNA3.1 EYFP H148Q/I152L is a mammalian expression vector designed for genetically encoded halide sensing. It is based on the pcDNA3.1 backbone and encodes an Enhanced Yellow Fluorescent Protein (EYFP) variant containing the mutations H148Q and I152L. These mutations significantly improve the protein's sensitivity to anions, particularly chloride and iodide, by altering the halide binding site near the chromophore, making it a useful tool for studying ion transport in live cells.

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 ℃.