

pDsRed-Express Vector

Catalog No.

632412

Amount

20 µg

Lot Number

Specified on product label.

Description

pDsRed-Express is a prokaryotic expression vector that encodes DsRed-Express, a variant of *Discosoma* sp. red fluorescent protein (DsRed). pDsRed-Express is primarily intended to serve as a source of DsRed-Express cDNA. The flanking MCS regions make it possible to excise the DsRed-Express coding sequence and insert it into other expression vectors of choice. The vector can also be used in bacteria to produce DsRed-Express protein. DsRed-Express contains nine amino acid substitutions which improve the solubility of the protein, reduce the time from transfection to detection of red fluorescence, and decrease the level of residual green emission. When DsRed-Express is expressed in mammalian cell cultures, red-emitting cells can be detected by either fluorescence microscopy or flow cytometry 8–12 hours after transfection. Although DsRed-Express most likely forms the same tetrameric structure as wild-type DsRed, DsRed-Express displays a reduced tendency to aggregate. The DsRed-Express coding sequence is human codon-optimized for high expression in mammalian cells.

Package Contents

- 20 µg pDsRed-Express Vector

Storage Conditions

- Store at –20°C.
- Spin briefly to recover contents.
- Avoid repeated freeze/thaw cycles.

Shelf Life

- 1 year from date of receipt under proper storage conditions.

Storage Buffer

- 10 mM Tris-HCl (pH 8.0), 1 mM EDTA (pH 8.0)

Concentration

- 500 ng/µl

Shipping Conditions

- Dry ice (–70°C)

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Propagation in *E. coli*

- Recommended host strain: DH5 α
- Selectable marker: plasmid confers resistance to ampicillin (50 μ g/ml) to *E. coli* hosts.
- *E. coli* replication origin: pUC
- Copy number: High

Excitation and Emission Maxima of DsRed-Express

- Excitation: 557 nm
- Emission: 579 nm

Quality Control Data

Plasmid Identity & Purity

- Digestion with the indicated restriction enzymes produced fragments of the indicated sizes on a 0.8% agarose/EtBr gel:

Enzyme	Fragment(s) (kb)
BamHI	3.3
PstI	2.9 & 0.4

- Vector identity was confirmed by sequencing.
- A₂₆₀/A₂₈₀: 1.8–2.0

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

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