

## pDsRed2-ER Vector

**Catalog No.**  
632409

**Amount**  
20 µg

**Lot Number**  
Specified on product label.

### Description

pDsRed2-ER is a mammalian expression vector designed to label the endoplasmic reticulum in living cells. The vector encodes a fusion consisting of *Discosoma* sp. red fluorescent protein (DsRed2); the endoplasmic reticulum (ER) targeting sequence of calreticulin, fused to the 5' end of DsRed2; and the ER retention sequence, KDEL, fused to the 3' end of DsRed2. DsRed2 is a human codon-optimized variant of wild-type DsRed that has been engineered for faster maturation and lower non-specific aggregation. pDsRed2-ER can be introduced into mammalian cells using any standard transfection method. If required, stable transformants can be selected using G418.

### Package Contents

- 20 µg pDsRed2-ER 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

### Propagation in *E. coli*

- Suitable host strains: DH5α, HB101, and other general purpose strains. Single-stranded DNA production requires a host containing an F plasmid such as JM109 or XL1-Blue.
- Selectable marker: plasmid confers resistance to kanamycin (50 µg/ml) to *E. coli* hosts.
- *E. coli* replication origin: pUC
- Copy number: high

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## Excitation and Emission Maxima of DsRed2

- Excitation: 558 nm
- Emission: 583 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:

<b>Enzyme</b>	<b>Fragment(s) (kb)</b>
NheI	4.7
EcoO109I	2.7 & 2.0

- Vector identity was confirmed by sequencing.
- $A_{260}/A_{280}$ : 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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### STATEMENT 24

DsRedExpress, DsRedExpress2, E2-Crimson, and HcRed are covered by one or more of the following U.S. Patent Nos. 7,157,565; 8,664,471; 8,679,749 and non-U.S. international equivalents in some countries.

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