

Fluorescent Lentiviral Expression Vectors

Lentiviral delivery system for your fluorescent fusion proteins

- **Efficient delivery into dividing and nondividing cells, including primary cells**
- **Easily achieve stable, long-term expression**
- **Visualize your protein of interest as a fluorescent fusion**

Clontech's new **Lenti-X™ Living Colors® Vectors** contain all of the features necessary to effectively express your fluorescently-tagged protein of interest in hard-to-transfect cells. Express your gene of interest, fused at the N- or C-terminus to either our monomeric red (DsRed-Monomer) or monomeric green (AcGFP1) fluorescent proteins (1–3). Both DsRed-Monomer and AcGFP1 have been specifically engineered to provide outstanding performance when expressed as fusions with other proteins.

The Lenti-X Living Colors Vectors are ideal for multicolor applications such as flow cytometry or fluorescence microscopy, and can serve as markers of packaging cell transfection and target cell infection. They contain all of the features necessary to efficiently deliver your gene of interest to dividing and nondividing hard-to-transfect cells, as well as to cultured cell lines and primary cells (Figure 1).

Fluorescent Fusion Proteins

The DsRed-Monomer and AcGFP1 proteins are ideal tools for monitoring gene expression and intracellular protein trafficking. Because of their distinct spectra, these fluorescent proteins can be used for multicolor labeling and direct visualization applications (Figure 1; 1–5).

The monomeric nature of the DsRed-Monomer protein has been confirmed by FPLC gel filtration chromatography and pseudonative gel electrophoresis, both of which yield results consistent with its calculated molecular weight of 26.8 kDa, based on amino acid sequence (1). Similarly, the monomeric nature of AcGFP1 has been

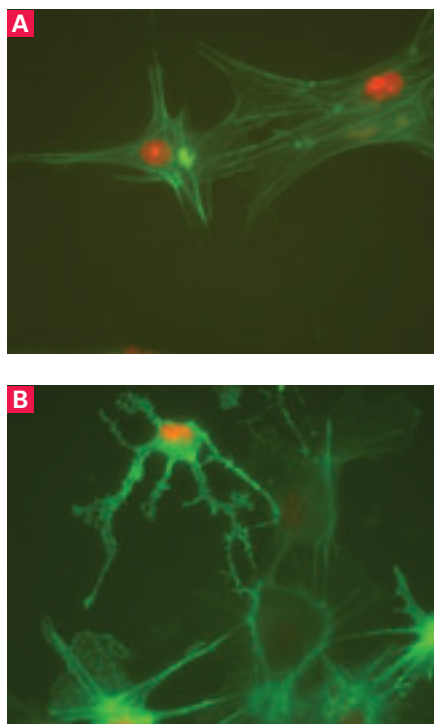


Figure 1. Visualization of human neural progenitor cells coinfecting with equivalent MOIs of pLVX-AcGFP1-Actin and pLVX-DsRed-Monomer-Nuc. Neurospheres were differentiated on laminin, then labeled by infection with pLVX-AcGFP1 and pLVX-DsRed-Monomer. Actin labeling with AcGFP1 allows clear visualization of the cytoskeletal structure. Nuclear labeling with DsRed-Monomer permits identification of cell position in both images (**Panels A & B**). MOI = multiplicity of infection.

confirmed by three independent methods: FPLC gel filtration chromatography, pseudonative gel electrophoresis, and sucrose density gradient ultracentrifugation. All the results agree with its calculated molecular weight, 26.9 kDa (2).

DsRed-Monomer and AcGFP1 fusion proteins are able to localize to compartments and structures that cannot accommodate oligomeric tags. Both proteins are extremely stable, and are ideal for subcellular localization studies, as shown in Figure 1. With these vectors, you can visualize biological processes as they occur and easily track your protein of interest to a specific subcellular organelle or structure.

Product	Size	Cat. No.
pLVX-DsRed-Monomer-N1 Vector*	10 µg	632152
pLVX-DsRed-Monomer-C1 Vector*	10 µg	632153
pLVX-AcGFP1-N1 Vector*	10 µg	632154
pLVX-AcGFP1-C1 Vector*	10 µg	632155
Lenti-X HT Packaging System	20 rxns	632160
	40 rxns	632161
Lentiphos HT	20 rxns	632151

* 本製品の購入には拡散防止措置に関する確認書が必要です。詳細は3ページ【ご注意】をご覧ください。

Related Products

- Living Colors® DsRed Polyclonal Antibody (Cat. No. 632496)
- Living Colors® A.v. Monoclonal Antibody (JL-8) (Cat. Nos. 632380 & 632381)

Notice to Purchaser

Please see the bGH Poly A, CMV Sequence, cPPT Element, DsRed-Express, DsRed-Monomer, IRES Sequence, Lentiviral Expression Products, Living Colors® Fluorescent Protein Products, Tet-Based Expression Products, VSV-G Technology, and WPRE Technology licensing statements on page 42.

Lentiviral Expression

The Lenti-X Living Colors Vectors can be used to establish fluorescent fusions in a wide variety of cell lines, primary cell cultures, stem cells, and nondividing cells, which may be resistant to standard gene delivery techniques such as transfection or retroviral infection. These vectors are designed for use with our **Lenti-X HT Packaging System**, which provides the entire complement of essential lentiviral packaging components, in ratios that maximize virus production (see pages 8–9).

References

1. BD Living Colors® DsRed-Monomer Fluorescent Protein (January 2005) *Clontechiques* **XX**(1):2–4.
2. BD Living Colors® AcGFP1 Fluorescent Protein (January 2005) *Clontechiques* **XX**(1):5–6.
3. BD Living Colors® Fluorescent Protein Vectors (October 2005) *Clontechiques* **XX**(2):18–20.
4. Living Colors® Fluorescent Protein Vectors (April 2006) *Clontechiques* **XXI**(1):16–17.
5. Retro-X™ Living Colors Fusion Vectors (July 2006) *Clontechiques* **XXI**(2):20.