

Data Sheet ***FcER1G Lentivirus*** **Catalog #: 79878**

Product Description

FcER1G is an adapter protein containing an immunoreceptor tyrosine-based activation motif (ITAM) that transduces activation signals from various immunoreceptors. As a component of the high-affinity immunoglobulin E (IgE) receptor, FcER1G mediates allergic inflammatory signaling in mast cells. FcER1G is also a subunit of other Fc receptors.

The FcER1G Lentivirus are replication incompetent, HIV-based, VSV-G pseudotyped lentiviral particles that are ready to be transduced into almost all types mammalian cells, including primary and non-dividing cells. The particles contain a FcER1G gene (NM_004106.2) driven by an EF1 α promoter (Figure 1).

Application

1. Transient expression of FcER1G in target cells.
2. Generation of stable cell line expressing FcER1G with Puromycin selection as an accessory protein to stabilize the surface expression of other Fc receptors.

Formulation

The lentiviruses were produced from HEK293T cells in the medium containing 90% DMEM + 10% FBS.

Titer

Two vials (500 μ l x 2) of lentivirus at a titer $\geq 5 \times 10^6$ TU/ml. The titer will vary with each lot; the exact value is provided with each shipment.

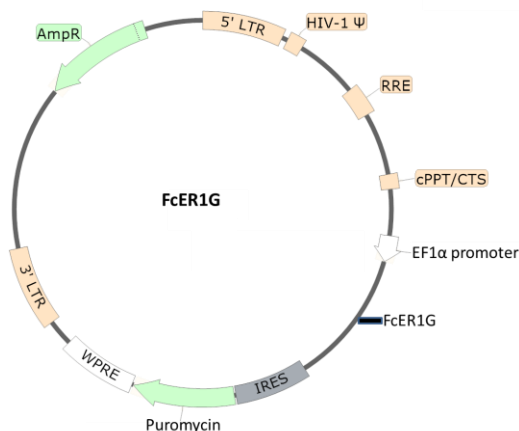


Figure 1. Schematic of the lenti-vector used to generate the FcER1G lentivirus

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Storage

Lentiviruses are shipped with dry ice. For long term storage, it is recommended to store the virus at -80°C . Avoid repeated freeze-thaw cycles. Titers can drop significantly with each freeze-thaw cycle.

Biosafety

None of the HIV genes (gag, pol, rev) will be expressed in the transduced cells, as they are expressed from packaging plasmids lacking the packing signal. Although the pseudotyped lentiviruses are replication-incompetent, they require the use of a Biosafety Level 2 facility. BPS recommends following all local federal, state, and institutional regulations and using all appropriate safety precautions.

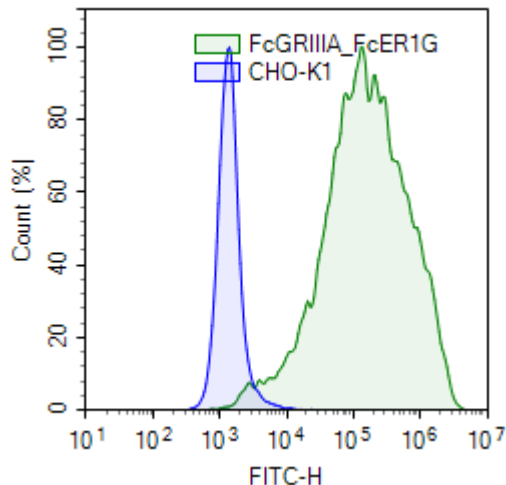


Figure 2. The expression of FcGR11A in CHO-K1 cells co-transduced with FcGR11A and FcER1G lentiviruses. A. Approximately 500,000 cells/well (6-well culture plate) were co-transduced with 1,000,000 TU/well FcGR11A (BPS#79876) and 1,000,000 TU/well FcER1G lentivirus in the presence of 5 $\mu\text{g}/\text{mL}$ of polybrene. After 52 hours of transduction, the cells were switched into Growth Medium 3G (BPS Bioscience #79882) which contains 1000 $\mu\text{g}/\text{ml}$ Geneticin (for FcGR11A) and 5 $\mu\text{g}/\text{ml}$ Puromycin (for FcER1G) for one week, and the antibiotic-resistant cell pool was analyzed by FACS using FITC-labeled anti-FcGR11A (BD Bioscience, #555406). Blue, CHO-K1 parental cells; Green, CHO-K1 cells co-transduced with FcGR11A and FcER1G lentivirus. Note: the expression of accessory protein FcER1G is required for the cell surface expression of FcGR11A. No surface expression of FcGR11A is detected by FACS in CHO cells transduced with FcGR11A lentivirus alone (data not shown).

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Related Products

<u>Product</u>	<u>Cat. #</u>	<u>Size</u>
NFκB Luciferase Reporter Lentivirus	79564	500 µl x2
CRE Luciferase Reporter Lentivirus	79580	500 µl x2
NFAT Luciferase Reporter Lentivirus	79579	500 µl x2
STAT3 Luciferase Reporter Lentivirus	79744	500 µl x2
STAT5 Luciferase Reporter Lentivirus	79745	500 µl x2
TCF/LEF Luciferase Reporter Lentivirus	79787	500 µl x2
ISRE Luciferase Reporter Lentivirus	79824	500 µl x2
IL-2 Promoter Luciferase Reporter Lentivirus	79825	500 µl x2
IL-8 Promoter Luciferase Reporter Lentivirus	79827	500 µl x2
AP-1 Luciferase Reporter Lentivirus	79823	500 µl x2
SBE Luciferase Reporter Lentivirus	79806	500 µl x2
TEAD Luciferase Reporter Lentivirus	79833	500 µl x2
ARE Luciferase Reporter Lentivirus	79869	500 µl x2
Negative Control Lentivirus	79578	500 µl x2
Renilla Luciferase (Rluc) Lentivirus	79565	500 µl x2
Firefly Luciferase (Fluc) Lentivirus (G418)	79692-G	500 µl x2
Firefly Luciferase (Fluc) Lentivirus (Hygromycin)	79692-H	500 µl x2
Firefly Luciferase (Fluc) Lentivirus (Puromycin)	79692-P	500 µl x2
FcERIIIA Lentivirus	79876	500 µl x2
FcGRIB Lentivirus	79877	500 µl x2

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