

# Data Sheet FcGRIIB (CD32B) Lentivirus Catalog #: 79877

#### **Product Description**

Fc Gamma Receptor 2B (FcGR2B, FcγRIIB), also known as CD32B, is a "low affinity" receptor for Immunoglobulin G (IgG). FcGR2B is involved in the phagocytosis of immune complexes and in the regulation of antibody production by B-cells. It is the predominant Fc receptor present on B cells. Crosslinking of antibodies by FcGR-expression cells can promote receptor clustering and increase downstream signaling. FcGR2B crosslinking is important for anti-TNFR receptor antibodies.

The FcGRIIB 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 FcGRIIB gene (NM\_004001.4) driven by a CMV promoter (Figure 1).

#### Application

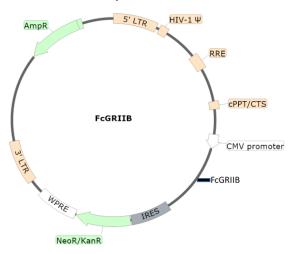
- 1. Transient expression of FcGRIIB in target cells.
- 2. Generation of stable cell line expressing FcGRIIB with Geneticin (G418) selection.

# Formulation

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

# Titer

Two vials (500  $\mu$ l x 2) of lentivirus at a titer  $\geq$ 5 x 10<sup>6</sup> 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 FcGRIIB 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.

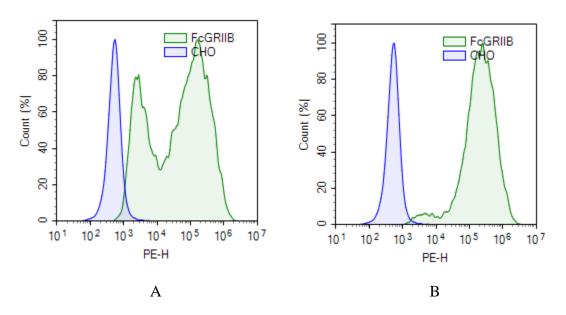


Figure 2. The expression of FcGRIIB in CHO-K1 cells transduced with FcGRIIB lentivirus. A. Approximately 500,000 cells/well (6-well culture plate) were transduced with 2,000,000 TU/well FcGRIIB lentivirus in the presence of 5  $\mu$ g/mL of polybrene. After 52 hours of transduction, the FcGRIIB expression was analyzed by FACS using PE labeled anti-FcGRIIB (Biolegend, #303206). Blue, CHO-K1 parental cells; Green, CHO-K1 cells transduced with FcGRIIB lentivirus.

**B**. After 52 hours of transduction, cells from **A**. were selected in Growth Medium 3D (BPS Bioscience #79539) which contains 1000  $\mu$ g/ml Geneticin for one week, and the Geneticin resistant cell pool was analyzed by FACS using PE labeled anti-FcGRIIB (Biolegend, #303206). Blue, CHO-K1 parental cells; Green, CHO-K1 cells transduced with FcGRIIB lentivirus.

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## **Related Products**

<u>Product</u>	<u>Cat. #</u>	<u>Size</u>
NFkB 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
FcGRIIIA Lentivirus	79876	500 µl x2
FcER1G Lentivirus	79878	500 µl x2

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