SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

Description

The ULBP2 Lentiviruses are replication incompetent, HIV-based, VSV-G pseudotyped lentiviral particles ready to transduce nearly all types of mammalian cells, including primary and non-dividing cells. These viruses transduce cells with *Macaca fascicularis* (also known as crab-eating macaque or cynomolgus monkey) ULBP2 (XP_005552169.1) driven by an EF1A promoter. The lentiviruses also transduce a puromycin selection gene (Figure 1).

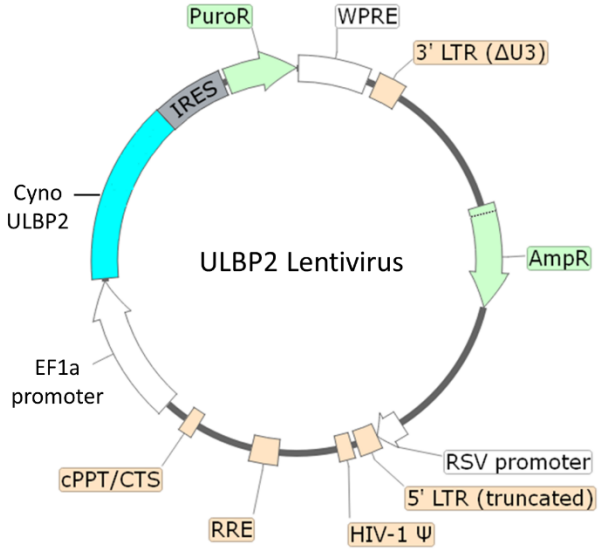

Figure 1: Schematic of the lenti-vector used to generate the cynomolgus ULBP2 Lentivirus.

Background

ULBP2 (UL16 binding protein) is a glycoprotein related to MHC class I molecules, that belongs to the family of unique length 16 (UL16) binding proteins. It is a stress-induced ligand for the activating NKG2D receptor in NK cells. It contains the MHC class-I-like α1-α2 domains but lacks the α3 region present in MICA/B proteins and uses GPI (glycosylphosphatidylinositol) as anchor to the plasma membrane. Stress-ligands respond to viral-infections, heat-shock or other cellular stress triggers, and are also crucial in immune surveillance. ULBP2 is expressed at low levels in normal tissues but overexpressed in several types of cancer (such as liver, breast, cervical and skin), with its levels linking to the severity of the prognosis. Targeting ULBP2, for example with miR-6071, was shown to reduce tumorigenicity in glioblastoma (GM). The use of ligands, small molecules, or other, to target the levels or action of ULBP2 can prove beneficial for NK-based cancer therapy.

Application(s)

- Expression of ULBP2 in cells of interest.
- Generate stable cell lines expressing cynomolgus ULBP2 (puromycin resistant).

Formulation

The lentivirus particles were produced in HEK293T cells in medium containing 90% DMEM + 10% FBS. Virus particles can be packaged in custom formulations by special request, for an additional fee.

Titer

Two vials (500 µl x 2) of lentivirus at a titer ≥10*7* TU/ml. The titer will vary with each lot; the exact value is provided with each shipment.

Storage

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

Biosafety

The lentiviruses are produced with a SIN (self-inactivation) lentivector which ensures self-inactivation of the lentiviral construct after transduction and after integration into the genomic DNA of the target cells. 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 and are not present in the lentivirus particle. Although the pseudotyped lentiviruses are replication-incompetent, they require the use of a Biosafety Level 2 facility. BPS Bioscience recommends following all local federal, state, and institutional regulations and using all appropriate safety precautions.

Notes

To generate an ULBP2 stable cell line, remove the growth medium 48 hours after transduction and replace it with fresh growth medium containing the appropriate amount of puromycin (as pre-determined from a killing curve), for antibiotic selection of transduced cells. Visit: https://bpsbioscience.com/cell-line-faq for guidelines on performing a kill curve.

Figures and Validation Data

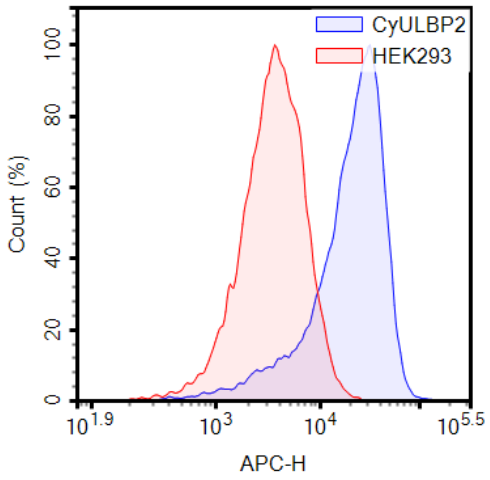

Figure 2. Expression of ULBP2 in HEK293 cells transduced with cynomolgus ULBP2 lentiviruses. HEK293 cells were transduced with cynomolgus ULBP2 Lentivirus. 66 hours post-transduction, control (red) and transduced (blue) HEK293 cells were stained with anti-Human ULBP-2/5/6 APC-conjugated Antibody (R&D systems #FAB1298A) and the expression of ULBP2 was analyzed by flow cytometry.

Sequence

Cynomolgus ULBP2 sequence (accession number XP_005552169.1)

MAAAATTKILLCLLLLLLPSLWSRAGRADLHSLCYEITIIPKFRPGRRWCAVQGQVDKKTFLHYDCGNKIVTPVSPLGKKFSVTKAW
KAQNPVLREVVDMLTEQLLDIQLENYTPREPLTLQARVSCEQKAEGHSSGSWQFGFDGQVFLLFDSENRMWTTVHPGARKMK
EKWENDKDVTMSFHYISMGDCTRWLKDFLTGTDSTLEPSAGASLTMSSGTTQLRATATTLILCCLLIILCCFILAGI

Troubleshooting Guide

Visit bpsbioscience.com/lentivirus-faq for detailed troubleshooting instructions. For further questions, email support@bpsbioscience.com.

Related Products

Products	*Catalog #*	*Size*
ULBP2 Lentivirus	78744	500 µl x 2
ULBP2, Avi-Tag Recombinant	100544	100 µg
BCMA Lentivirus	78714	500 µl x 2
FcRL5 Lentivirus	78715	500 µl x 2
GPRC5D Lentiviruses	78716	500 µl x 2
PSMA Lentivirus	78726	500 µl x 2