Established in 2017, GCI & Biochemistry

## McGill Platform for Cellular Perturbation (MPCP)

<u>Mission</u>: Support functional investigations of mammalian genomes with complementary means of genetic perturbation

<u>Management:</u>

Director Sid Huang, PhD

Manager Azadeh Arabzadeh, PhD



Lab helper Mark Liao



<u>Service:</u> Rapid & low-cost access to genome-wide plasmid libraries (arrayed & sequence-verified bacterial glycerol stock

shRNA: MISSION® Human & Mouse lentiviral shRNA libraries (TRC1, 1.5 and 2)

cDNA: MISSION® TRC3 Human lentiviral ORF collection

MGC premier human lentiviral ORF

ORFeome Collaboration collection, ORFeome v8.1 Libraries

MGC premier mouse ORFeome Collaboration Library

CRISPR: TransEDIT-dual lentiviral CRISPR library, Human



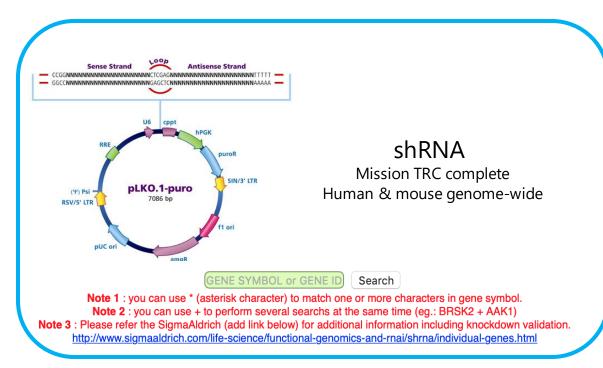
McGill.CA / ROSALIND AND MORRIS GOODMAN CANCER INSTITUTE / Facilities / McGill Platform for Cellular Perturbation (MPCP)

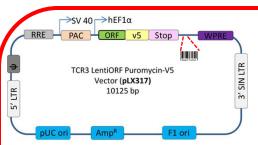
# McGill Platform for Cellular Perturbation Services

#### Service Request

#### Placing the request online

Please use the following links for your clone search and service order: shRNA, CRISPR, or ORF. These are McGill campus-restricted websites. To access off-campus, please connect through VPN.





#### ORF

### Human genome-wide collections Mouse - small collection

#### ORF libraries available :

Human ORFs in lentiviral expression vectors

- pLX317 (puromycin resistance marker)
- pLX304 (blasticidin resistance marker)

Human ORFs in Entry (Gateway cloning compatible) vectors Mouse ORFs in Entry (Gateway cloning compatible) vectors

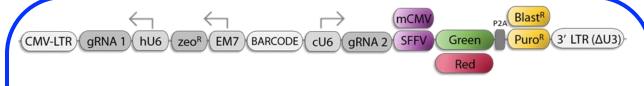
All libraries were generated by members of the ORFeome Collaboration. (http://www.orfeomecollaboration.org/)

Please note that the clones were sequence-verified, but they are not necessarily perfect matches to the transript's sequence.

Please verify each clone's sequence before ordering.

Sequences are available either on the Broad Institute's website or on NCBI.

Broad Institute: (http://portals.broadinstitute.org/gpp/public/clone/search)
NCBI: (https://www.ncbi.nlm.nih.gov/nucleotide/)





Human CRISPR knockout library in pCLIP-Dual-SFFV-ZsGreen vector:

- 2 sgRNAs/vector targeting the same gene
- Bacterial selection: Carbenicillin (or ampicillin) and zeocin resistance
- Mammalian selection: Puromycin resistance and ZsGreen expression
- Includes 25-bp barcode for pooled applications

Negative control vectors available:

- 13 scrambled gRNA controls (search for "scrambled\*")
- gRNA targeting Luciferase (search for "luciferase\*")

Cas9 nuclease vectors available:

- Choice of 3 different promoters for Cas9 expression: EFS, hCMV, TRE3G
- Mammalian selection: either Blasticidin resistance or tRFP expression
- Bacterial selection: ampicillin
- Order TET3G vector separately to use with TRE3G promoter vectors
- Search for "Cas9" or "TET3G" to find those vectors