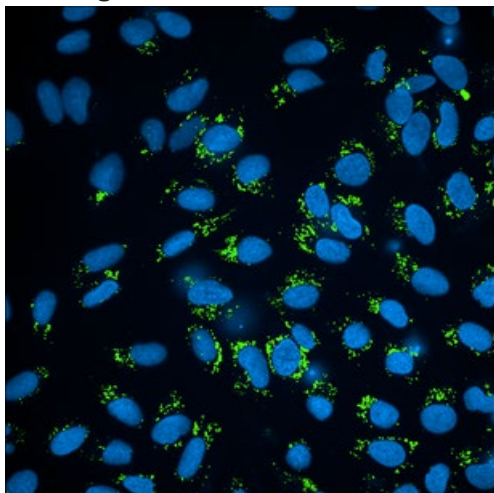


## MAP1/LC3B

### Single gene-tagged cell line (U-2 OS)

Catalog Number: EXP-020



(NOTE: In above photo, nuclei are counterstained with Hoechst 33342)

### Product summary

This single-labeled cell line can be used for identifying autophagic vesicles after stimulation with inducers or inhibitors of autophagy in live cells. This cell line allows detection of the LC3B protein.

Cell Type:	U-2 OS
Gene Symbol:	MAP1LC3B
NCBI gene ID	81631
Protein:	Microtubule-associated proteins 1A/1B light chain 3B
Subcellular location:	Cytosol/Autophagosome
Modification	N-terminal mClover3
Excitation/Emission (nm)	506/518
Antibiotic resistance	Puromycin
Population type	Homozygous

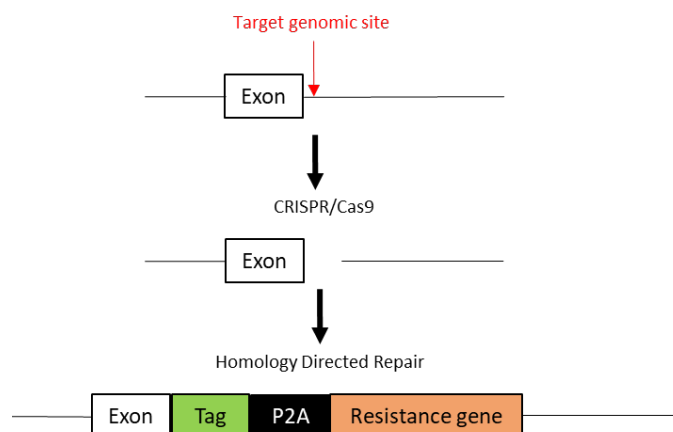
### Gene/protein summaries from NCBI database

Studies on the rat homolog implicate a role for this gene in autophagy, a process that involves the bulk degradation of cytoplasmic components[provided by RefSeq, Jul 2008]

### ExpressCells' FAST-HDR knock-in technology

ExpressCells uses CRISPR and FAST-HDR vector technology to knock-in fluorescent, luminescent, or other tags at the C or N-terminus of endogenous genes. The non-viral FAST-HDR system enables rapid labeling of up to three proteins of interest in a single mammalian cell line.

#### Schematic Example



### Handling

**Culture medium:** Dulbecco's Modified Eagle Medium (DMEM)-F12 with high glucose supplemented with 10% fetal bovine serum (FBS), penicillin/streptomycin and 2mM glutamine.

**Thawing:** Transfer the frozen tube to a 37° C water bath and let the contents thaw. Transfer tube contents to 10 mL of prewarmed medium in a biosafety hood and centrifuge at 200 × g for 5 min. Resuspend the pellet in 5 mL of medium and transfer to a mammalian cell culture T25 flask. **Safety:** Biosafety level 2.

### References

- Gene [database online]. Washington DC: NCBI; 2020. <https://www.ncbi.nlm.nih.gov/gene/8878>. Accessed March 19, 2020.
- Perez-Leal O, Nixon-Abell J, Barrero CA, Gordon J, Rico MC. A versatile vector system for the fast generation of knock-in cell lines with CRISPR [preprint published online February 6, 2020]. *bioRxiv*. doi: 10.1101/2020.02.06.927384.

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