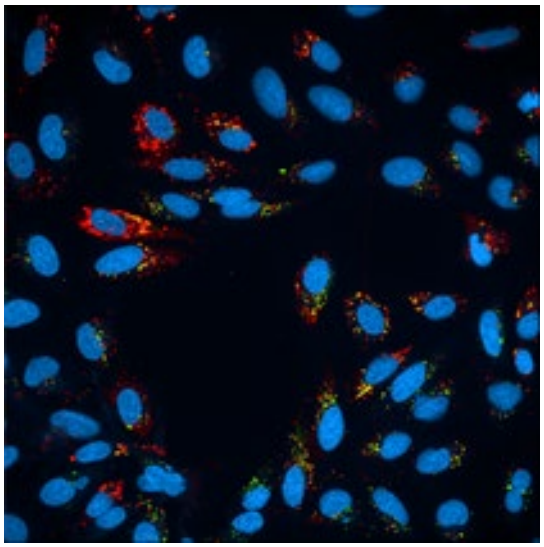
info@xpresscells.com
www.xpresscells.com

SEQUESTOSOME-1/p62 MAP1/LC3B

Double gene-tagged cell line (U-2 OS)

Catalog Number: EXP-021



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:	a) SQSTM1 b) MAP1LC3B
NCBI gene ID	a) 8878 b) 81631
Protein:	a) Sequestosome-1p62 b) Microtubule-associated proteins 1A/1B light chain 3B
Subcellular location:	Cytosol/Autophagosome
Modification	a) N-terminal mRuby3 b) N-terminal mClover3
Excitation/Emission (nm)	a) 558/592 b) 506/518
Antibiotic resistance	a) Zeocin® b) Puromycin
Population type	Homozygous

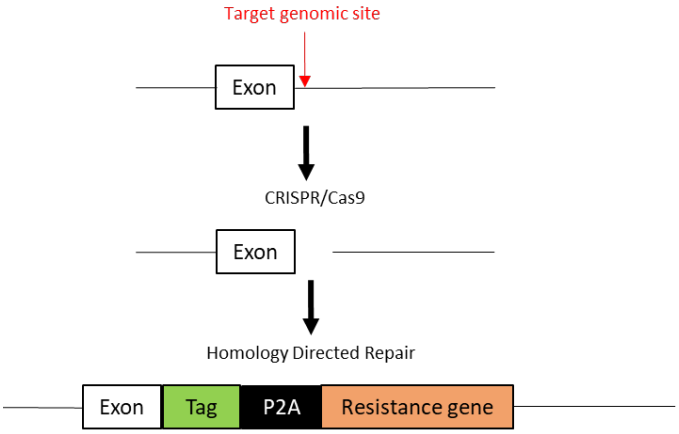
Gene/protein summaries from NCBI database

a) This gene encodes a multifunctional protein that binds ubiquitin and regulates activation of the nuclear factor kappa-B (NF-kB) signaling.... [provided by RefSeq, Mar 2009] b)The product of this gene is a subunit of neuronal microtubule-associated MAP1A and MAP1B proteins, which are involved in microtubule assembly and important for neurogenesis. 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

1. Gene [database online]. Washington DC: NCBI; 2020. https://www.ncbi.nlm.nih. gov/gene/8878. Accessed March 19, 2020.
2. 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.

For research use only.
U.S. Patent #10,883,120