

Materials List for

# A Pipeline to Investigate the Structures and Signaling Pathways of Sphingosine 1-Phosphate Receptors

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## Citation

Cheng, L., Su, L., Tian, X., Xia, F., Zhao, C., Yan, W., Shao, Z. A Pipeline to Investigate the Structures and Signaling Pathways of Sphingosine 1-Phosphate Receptors. *J. Vis. Exp.* (184), e64054, doi:10.3791/64054 (2022).

## Date Published

June 8, 2022

## DOI

10.3791/64054

## URL

jove.com/video/64054

## Materials

Name	Company	Catalog Number	Comments
0.05% trypsin-EDTA	GIBCO	Cat# 25300054	
0.22 µM filter	Thermo Fisher Scientific	Cat# 42213-PS	
100 kDa cut-off concentrator	Thermo Fisher Scientific	Cat# 88533	
6-well plate	Corning	Cat# 43016	
96-well plate	Corning	Cat# 3917	
Aprotinin	Sigma-Aldrich	Cat# 9087-70-1	
Apyrase	NEB	Cat# M0398S	
Baculovirus transfection reagent	Thermo Fisher Scientific	Cat# 10362100	For the preparation of P0 baculovirus
Benzamidine	Sigma-Aldrich	Cat# B6506	
CHO-K1	ATCC	N/A	
CHS	Sigma-Aldrich	Cat# C6512	
CryoSPARC	Punjani, A., et al., 2017	<a href="https://cryosparc.com/">https://cryosparc.com/</a>	
DH5α competent E.coli	Thermo Fisher Scientific	Cat# EC0112	
D-Luciferin-Potassium Salt	Sigma- Aldrich	Cat# 50227	
DMSO	Sigma- Aldrich	Cat# D2438	
EDTA	Thermo Fisher Scientific	Cat# S311-500	
ESF921 cell culture medium	Expression Systems	Cat# 96-001	
Excel	microsoft	N/A	
F12 medium	Invitrogen	Cat# 11765	
FBS	Cell Box	Cat# SAG-01U-02	
Flag resin	Sigma- Aldrich	Cat# A4596	
Forskolin	APExBIO	Cat# B1421	
Gctf	Zhang, 2016	<a href="https://www.mrc-lmb.cam.ac.uk/kzhang/Gctf/">https://www.mrc-lmb.cam.ac.uk/kzhang/Gctf/</a>	
GDN	Anatrace	Cat# GDN101	
Gel filtration column	GE healthcare	Cat# 28990944	

Gen5 3.11	BIO-TEK	N/A	
Gentamicin	Solarbio	Cat# L1312	
GloSensor cAMP assay kit	Promega	Cat# E1291	Gi-inhibition cAMP assay kit
GloSensor plasmid	Promega	Cat# E2301	Sensor plasmid
Grace's medium	GIBCO	Cat# 11595030	
GraphPad Prism 8	Graphpad	N/A	
HBSS	Thermo Fisher Scientific	Cat# 88284	
HEPES	Sigma- Aldrich	Cat# H4034	
jetPRIME Reagent	Polyplus Transfection	Cat# 114-15	transfection reagent
Janamycin	Solarbio	Cat# K1030	
LB medium	Invitrogen	Cat# 12780052	
Leupeptin	Sigma-Aldrich	Cat# L2884	
LMNG	Anatrace	Cat# NG310	
MotionCor2	(Zheng et al., 2017)	<a href="https://emcore.ucsf.edu/ucsf-software">https://emcore.ucsf.edu/ucsf-software</a>	
NanoCab	Thermo Fisher Scientific	Cat# 1121822	
PBS	Invitrogen	Cat# 14190-144	
pcDNA3.1-HA-FLAG-S1PRs	GenScript	N/A	
pFastBac1-Gq $\alpha$	GenScript	N/A	
pFastBac1-HA-FLAG-T4L-S1PRs-His10	GenScript	N/A	
pFastBacdual-G $\beta$ 1 $\gamma$ 2	GenScript	N/A	
PureLink HiPure Plasmid Miniprep Kit	Invitrogen	Cat# K210003	For the preparation of plasmids and P0 baculovirus
Q5 site-Directed Mutagenesis kit	NEB	Cat# E0554S	For the preparation of plasmids
Quantifoil	Quantifoil	Cat# 251448	
RELION-3.1	(Zivanov et al., 2018)	<a href="https://www2.mrc-lmb.cam.ac.uk/relion">https://www2.mrc-lmb.cam.ac.uk/relion</a>	
S1PRs cDNA	addgene	N/A	
scFv16	Invitrogen	Cat# 703976	
Sf9	Expression Systems	N/A	
Siponimod	Selleck	Cat# S7179	
sodium cholate	Sigma-Aldrich	Cat# C1254	
Synergy H1 microplate reader	BIO-TEK	N/A	
Synthetic T4L DNA (sequence)	N/A	N/A	Aacatctcgagatgctgcatcgacaagg cctgctctcaagattacaagaataccgaagg ttattacagatggcatcgccacctctgaca aagagccatcactcaacgctccaagictga actggacaaagccattggtcgcaaccaac gggtcattacaaaggacgaggcggagaaac tctcaaccaagatgtagatgaggctgctggtg catcctgctaatgccaagtgaagcccgtgt atgactccctgatgctgtccgctgcagcctt gatcaacatggtttccaaatgggtgagaccgg agtggctggtttacgaactccctgcatgctcc agcagaagcgtgggacgaggccgagcagtg attggctaaatctgctgtacaatcagacacc taaccgtccaagcgtgtcactactctccg tactggaactgggacgcttac
TCEP	Thermo Fisher Scientific	Cat# 77720	
Tetracycline	Solarbio	Cat# T8180	
Vitrobot Mark IV	Thermo Fisher Scientific	N/A	