

Materials List for:

# Oligomerization Dynamics of Cell Surface Receptors in Living Cells by Total Internal Reflection Fluorescence Microscopy Combined with Number and Brightness Analysis

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URL: <https://www.jove.com/video/60398>

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## Materials

Name	Company	Catalog Number	Comments
3-Colour Fast TIRF Leica AM TIRF MC inverted microscope, with smi-automatic TIRF alignment. The microscope is equipped with a diode 488 nm laser, a 100x 1.46 oil TIRF objective, Ex/Em Bandpass filters at 490/20 and 525/50, temperature/CO <sub>2</sub> incubator and Andor DU 8285 VP EMCCD camera. The microscope is operated by Leica LIF software.	Leica Microsystems, Wetzlar, Germany		
Albumin from Bovine Serum 98% minimum	Sigma-Aldrich, St. Louis, MI, USA	A7906-100G	
DMEM without Phenol Red with 25 mM HEPES	GIBCO Thermo Fisher Scientific, Waltham, MA, USA	21063029	Used serum free for microscopy
DMEM high-glucose GlutaMAX I	GIBCO Thermo Fisher Scientific, Waltham, MA, USA	10566-016	Used for complete medium
Dulbecco's Phosphate Buffered Saline 10x (PBS)	Biowest, Nuaille, France	X0515-500	
Emission splitting system Photometrics DV2	TeledynePhotometrics, Tucson, AZ, USA		
Fetal Bovine Serum, qualified, Brazil	GIBCO Thermo Fisher Scientific, Waltham, MA, USA	10270106	10% inactivated supplement for complete medium
Glass bottom 35 mm sterile 1.5 dishes	MatTek, Ashland, MA, USA	P35G-0.170-14-C	uncoated, glass thickness 0.17 microns
GraphPad Prism	GraphPad Software Inc., San Diego, CA, USA		
Human cervical carcinoma (HeLa), serum-free animal component (AC) cells	Millipore-Sigma ECACC, Darmstadt, Germany	CB_0801102	
iXonEM+ 897 EMCCD (back-illuminated) ANDOR camera controlled by ANDOR Solis software	Oxford Instruments, Andor TM Technology, Abingdon-on-Thames, UK		This camera, installed in an additional port of the microscope, is used for acquiring the N&B time series
Matlab Executable N&B routine	Unit of Microscopy and Dynamic Imaging, CNIC, Madrid, Spain		download at <a href="https://www.cnic.es/en/investigacion/2/1187/tecnologia">https://www.cnic.es/en/investigacion/2/1187/tecnologia</a>
MatLab v.2018b	The MathWorks, Inc. Natick, MA, USA		<a href="https://www.mathworks.com/products/matlab.html">https://www.mathworks.com/products/matlab.html</a>

Penicillin:Streptomycin for tissue culture 100x	Biowhittaker Inc. Walkersville, MD, USA	LONZA 17-602E	supplement for medium at Penicillin/Streptomycin 100 U/100µg.
pN1-mEGFP-FGFR1 expression vector	Unit of Gynecological Oncology Research, European Institute of Oncology IRCCS, Milan, Italy		Zamai et al., 2019
pN1-N-Gly-mEGFP-GPI expression vector	Unit of Microscopy and Dynamic Imaging, CNIC, Madrid, Spain		Hellriegel et al., 2011
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Recombinant FGF2	PeproTech EC, Ltd., London, UK		Ligand solution: 20 ng/mL of FGF2 in PBS supplemented with 0.01%BSA.
Sodium pyruvate GIBCO	ThermoFisher Scientific	11360070	1 mM supplement for medium
TransIt-LT1 Transfection Reagent	MirusBio LLC, Madison, WI, USA	MIR 2300	
Trypsin-EDTA (0.25%), phenol red	GIBCO Thermo Fisher Scientific,Waltham, MA, USA	25200056	
Type F Immersion liquid 10 mL	Leica Microsystems, Wetzlar, Germany	11513 859	
UltraPure BSA (50 mg/mL)	ThermoFisher Scientific	AM2618	0.1% supplement for medium without phenol red used for transfections