

Materials List for:

# Measuring Phagosome pH by Ratiometric Fluorescence Microscopy

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## Materials

Name	Company	Catalog Number	Comments
Zymosan A powder	Sigma-Aldrich	Z4250	Various providers exist
Fluorescein isothiocyanate	Sigma-Aldrich	F7250	Various providers exist
Anti-zymosan antibody (Zymosan A Bioparticles opsonizing reagent)	Life Technologies	Z2850	Sigma-Aldrich O6637 is an equivalent product. Alternatively 25% serum can be used as an opsonizing reagent.
4-Aminobenzoic hydrazide (4-ABH)	Santa Cruz	sc-204107	Toxic, use gloves, various providers exist
Diphenyleiodonium chloride (DPI)	Sigma-Aldrich	D2926	Toxic, use gloves, various providers exist
Concanamycin A (ConcA)	Sigma-Aldrich	27689	Toxic, use gloves, various providers exist
Nigericin	Sigma-Aldrich	N7143	Toxic, use gloves, various providers exist
Monensin	Enzo	ALX-380-026-G001	Toxic, use gloves, various providers exist
Phosphate buffered saline (PBS)	Life Technologies	14200-075	Toxic, use gloves, various providers exist
Hank's balance salt solution	Life Technologies	14025092	Ringer's balanced salt solution or other clear physiological buffers may be substituted.
Sodium carbonate (Na <sub>2</sub> CO <sub>3</sub> )	Sigma-Aldrich	S7795	Various providers exist
2-(N-Morpholino)ethanesulfonic acid (MES)	Sigma-Aldrich	M3671	Various providers exist
4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid (HEPES)	Sigma-Aldrich	H3375	Various providers exist
N-Methyl-D-glucamine (NMDG)	Sigma-Aldrich	M2004	Various providers exist
Ethylene glycol-bis(2-aminoethylether)-N,N,N',N'-tetraacetic acid (EGTA)	Sigma-Aldrich	3777	Various providers exist
Tris(hydroxymethyl)aminomethane (Tris)	Sigma-Aldrich	T1503	Various providers exist
Potassium chloride (KCl)	Sigma-Aldrich	P9333	Various providers exist
Sodium chloride (NaCl)	Sigma-Aldrich	S7653	Various providers exist
Magnesium chloride (MgCl <sub>2</sub> )	Sigma-Aldrich	M8266	Various providers exist
Absolute Ethanol (EtOH)	Sigma-Aldrich	2860	Various providers exist
Glass-bottom 35 mm petri dishes (Fluorodish)	World Precision Instruments	FD35-100	Ibidi $\mu$ -clear dishes or coverslips with appropriate imaging chambers may be substituted
Sonicated water bath	O. Kleiner AG		A sonicator may be used instead, various instrument providers exist

Heamocytometer	Marienfeld GmbH		Various instrument providers exist
Widefield live imaging microscope	Carl Zeiss AG		Various instrument providers exist, but the microscope must be able to image 440/535 and 490/535 excitation/emission respective. Spinning disk confocal set-ups with brightfield capabilities may substituted, but zymosan tend to go out of focus more often.
Peristaltic pump (Dynamax RP-1)	Rainin		Various instrument providers exist
pH meter	Schott Gerate GmbH		Various instrument providers exist
Manual Counter	Milian SA		Various instrument providers exist