

Materials List for:

# The Ingestion of Fluorescent, Magnetic Nanoparticles for Determining Fluid-uptake Abilities in Insects

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URL: <https://www.jove.com/video/56619>

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## Materials

Name	Company	Catalog Number	Comments
20% sucrose solution	Domino Sugar		Sugar needed to produce the sucrose solution with dH <sub>2</sub> O
Phosphate Buffered Saline (PBS)	Sigma-Aldrich	P5493	10X concentration diluted to 1X in dH <sub>2</sub> O for insect dissections
Single depression concave slide	AmScope	BS-C6	Slide is necessary for feeding stage setup
Filter paper	EMD Millipore	NY6004700 (60 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	NY4104700 (41 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	NY3004700 (30 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	NY2004700 (20 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	NY1104700 (11 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	TCTP04700 (10 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	TETP04700 (8 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	TMTP04700 (5 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Filter paper	EMD Millipore	RTTP04700 (1 μm)	Nylon net filters and isopore filters needed to produce a porous surface for insect feeding
Iris microdissecting scissors	Carolina Biological Supply Company	623555	Scissors used for dissections
Insect pins (#1)	Bioquip Products	1208B1	Pins used during dissections and feeding trials
Extra-fine point dissecting forceps	Carolina Biological Supply Company	624684	Dissecting equipment

Leica M205 C Stereoscope	Leica Microsystems	M205 C	Stereoscope used for dissections
Inverted confocal microscope	Olympus	IX81	Fluorescent microscope used to detect magnetic nanoparticles
Fisherbrand PTFE Disposable Stir Bar	Fisherscientific	S68067	Magnet used to detect nanoparticles
Kimtech Science Kimwipes	Kimberly-Clark Professional	34155	Tissues used to secure insects during feeding trials
House fly ( <i>Musca domestica</i> ) pupae	Mantisplace.com		insects for experiments
Blue bottle fly ( <i>Calliphora vomitoria</i> ) pupae	Mantisplace.com		insects for experiments
Cabbage butterfly ( <i>Pieris rapae</i> ) larvae	Carolina Biological Supply Company	144102	insects for experiments
Finnpipette F1	ThermoFisher Scientific	4641080N	micropipette for dispensing liquids
Finntip 250 pipette tips	ThermoFisher Scientific	9400250	micropipette tips
Microscope Glass cover slides (=coverslips) (24 x 24 mm)	AmScope	CS-S24-100	coverslips for viewing the insect's crop on confocal microscope