

Bead Lysis Kit Selection Guidelines

What Bead Lysis Kit is right for my research?

Here are some recommendations and guidelines to keep in mind when selecting a Bead Lysis Kit to use. The main things to consider are your desired buffer volume and the toughness of your sample. Pink and Red kits are best for soft samples, Green and Navy for tougher material, and Yellow kits are used to lyse bacteria. Pink and Green kits are appropriate for buffer volumes up to 200 μ L; Red, Navy and Yellow kits can be used for volumes between 200 and 500 μ L.

Note that Bead Lysis Kits are not appropriate for all samples. For special applications such as extracting live bacteria from tissue, grinding dry agricultural samples, or tissue dissociation, we recommend bulk beads.

GREEN kits: Excellent for small medium-tough samples

GREEN Bead Lysis Kits are filled with a mix of stainless steel beads. They're excellent for small samples of tougher material like muscle.

NAVY kits: Extra power for your tough samples

NAVY Bead Lysis Kits are filled with a custom mix of stainless steel beads. They're great for samples too large for a GREEN kit, and deliver extra homogenizing power for challenging samples like bone, tumors, and hard-shelled insects such as ticks.

PINK kits: The best for small soft samples

PINK Bead Lysis Kits are filled with a mix of zirconium oxide beads for small samples of soft material like liver.

RED kits: Ideal for larger soft samples

RED Bead Lysis Kits are filled with a mix of zirconium oxide beads for larger samples of soft material.

YELLOW kits: Blend your bacteria better

YELLOW Bead Lysis Kits are filled with beads selected for high yielding bacterial lysis.

Kits for specific sample types

Consult the table below to identify the best kit for your sample.

	Sample Size and Buffer Volume	Bead Lysis Kits
Animal Tissue		
Soft to medium samples such as brain, liver, kidney	up to 200 μ L of buffer, samples up to 100 mg	PINK, GREEN
	200 μ L to 600 μ L of buffer, samples up to 300 mg	RED, NAVY
Tough samples such as tumor or cardiac muscle	up to 200 μ L of buffer, samples up to 100 mg	GREEN
	200 μ L to 600 μ L of buffer, samples up to 300 mg	NAVY
Very tough samples such as bone, skin, or connective tissue	200 μ L to 600 μ L of buffer, samples up to 200 mg	NAVY
Extremely resilient samples such as umbilical cord	<i>Try our UFO beads.</i>	

Small Organisms		
Insects: soft-bodied insects such as fruit flies and honeybees	up to 200 μ L of buffer, samples up to 100 mg	PINK, GREEN
	200 μ L to 600 μ L of buffer, samples up to 300 mg	RED, NAVY
Insects: Hard, light insects such as ticks	up to 200 μ L of buffer, samples up to 50 mg	GREEN
	200 μ L to 600 μ L of buffer, samples up to 150 mg	NAVY
Nematodes (<i>C. elegans</i> , etc.)	up to 200 μ L of buffer, samples up to 100 mg	PINK, GREEN
	200 μ L to 600 μ L of buffer, samples up to 300 mg	RED, NAVY
Zebrafish	up to 200 μ L of buffer, larvae up to 100 mg	PINK, GREEN
	200 μ L to 600 μ L of buffer, samples up to 300 mg	RED (larvae only), NAVY

Cell Culture		
Bacteria	200 μ L to 600 μ L of buffer, pellets up to 300 μ L	YELLOW
Mammalian tissue culture	up to 200 μ L of buffer, pellets up to 100 μ L	PINK
	200 μ L to 600 μ L of buffer, pellets up to 300 μ L	RED
Yeast	up to 200 μ L of buffer, pellets up to 100 μ L	PINK
	200 μ L to 600 μ L of buffer, pellets up to 300 μ L	RED
Microalgae (e.g., <i>Haematococcus</i>)	up to 200 μ L of buffer, pellets up to 100 μ L	PINK
	200 μ L to 600 μ L of buffer, pellets up to 300 μ L	RED

Plant Matter		
Soft leaves like <i>Arabidopsis</i> or spinach	up to 200 μ L of buffer, samples up to 100 mg	PINK, GREEN
	200 μ L to 600 μ L of buffer, samples up to 300 mg	RED, NAVY
Tough leaves like oak, fruit, slender stems, roots	up to 200 μ L of buffer, samples up to 50 mg	GREEN
	200 μ L to 600 μ L of buffer, samples up to 200 mg	NAVY
Small or soft seeds, rice grains	200 μ L to 600 μ L of buffer, samples up to 150 mg	NAVY
Soft macroalgae (e.g., <i>Codium</i>)	up to 200 μ L of buffer, samples up to 100 mg	PINK, GREEN
	200 μ L to 600 μ L of buffer, samples up to 300 mg	RED, NAVY
Filamentous or tough algae (e.g., <i>Pithophera</i>)	up to 200 μ L of buffer, samples up to 50 mg	GREEN
	200 μ L to 600 μ L of buffer, samples up to 200 mg	NAVY
Very hard seeds, such as dried soy, corn, etc.	Try our Bullet Blender Storm 5 with special beads. Ask us for details.	