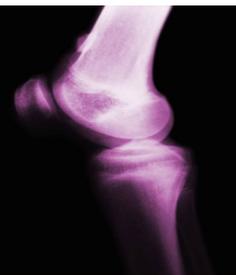


Bone



The following are guidelines for isolating material from bone using the MP Biomedicals FastPrep-24 System.

For DNA:

Lysing Matrix A is a garnet matrix with a ¼” zirconium ball and is the recommended matrix for bone.

The optimal machine settings for bone are:

Quantity	FastPrep Speed	FastPrep Time
40 mg mouse femur	6.0 m/s	4 x 30 seconds

Cat #	Description	Size
6910-050	Lysing Matrix A	50 x 2ml

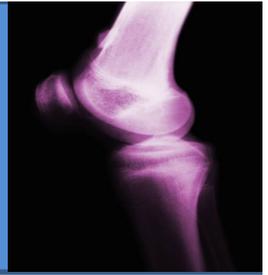
For RNA :

In order to isolate the more liable RNA, MP Biomedicals recommends using a steel ball matrix. For the 2ml tubes, MP Biomedicals offers a 1.5mm steel bead matrix and for the larger size adapters, we offer a 6mm steel bead matrix.

Alternatively, Lysing Matrix I which contains 2mm zirconia beads and 4mm ceramic beads would also be able to provide enough force to shear the bone while maintaining the integrity of the RNA and proteins.



Bone continued...



Cat #	Description	Size
6925-050	Metal Bead Lysing Matrix 1.5mm	50 x 2ml
6938-025	Teen Metal Bead Lysing Matrix 6mm	25 x 15 ml
6918-050	Lysing Matrix I	50 x 2ml

For Proteins:

Both methods and types of matrix described above for RNA can also be utilized for protein isolation.

In addition to the steel bead matrix or matrix I, proteins can be isolated from bone using two of the ¼" zirconium balls that come in the Lysing Matrix A or we carry a cylindrical zirconium bead (8mm in length) that can be used as well. The ¼" ball or cylinder, if sandwiched with one ball on the bottom, then the bone sample, then another ball on top has proven very effective and will lyse the bone by bead-beating impaction only, without the shearing effects of the garnet. This keeps even large proteins intact.

Cat #	Description	Size
6540-414	Cylindrical Zirconium Beads	500 each

Additional Matrices and Adapters are available for the FastPrep and can be found by visiting:

www.mpsampleprep.com

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