

Worthington Biochemical Corporation offers a complete method development kit containing an assortment of enzymes most frequently used in tissue dissociation and cell isolation procedures. The "Cell Isolation Optimizing System" includes instructions, references and strategies for the handling, use and optimization of enzymatic cell isolation methods to achieve maximum yield of viable cells. The system is designed to offer versatility in developing a method of obtaining cells from many different tissue types and sources in a cost-efficient manner.

Description	Code	Size	Cat. No.	Price
Cell Isolation Optimizing System	CIT	1 Box	LK003200	\$525.00
A complete method development kit for enzymatic primary cell isolation including enzymes and detailed instructions.				
<i>Ask about our bulk quantity discounts for educational and training purposes.</i>				

Description and Package Contents

A complete method development kit containing an assortment of enzymes most frequently used in enzymatic tissue dissociation and cell isolation procedures. Includes instructions, references, and strategies for the handling, use and optimization of enzymatic cell isolation methods for maximum yield of viable cells. Contains all enzymes commonly referenced in tissue dissociation and cell isolation procedures. Also contains the Cell Isolation Guide which describes the tissue types commonly used, the mode of action of the various enzymes, tissue culture techniques, and protocol optimization guidelines (with cell- and tissue-specific references for getting started in enzymatic cell isolation).

Tissue dissociation and cell harvesting are two principal applications for enzymes in tissue culture research and cell biology studies. Despite the widespread use of enzymes for these applications over the years, their mechanisms of action in dissociation and harvesting are not well understood. As a result, the choice of one technique over another is often arbitrary and based more on past experience than on an understanding of why the method works and what modifications could lead to even better results.

Investigators searching the scientific literature for information on the ideal enzymes and optimal conditions for tissue dissociation are often confronted with conflicting data. Much of the variation stems from the complex and dynamic nature of the extracellular matrix and from the historical use of relatively crude, undefined enzyme preparations for cell isolation applications. The extracellular matrix is composed of a wide variety of proteins, glycoproteins, lipids and glycolipids, all of which can differ in abundance from species to species, tissue to tissue and with developmental stage. The Worthington Cell Isolation Optimizing System provides an assortment of the widely used enzymes in purified form for establishing an optimized cell isolation procedure on a cost-efficient basis.

Kit Contents

Enzyme	Code	Quantity/Vial	Related Products
Collagenase Type 1	CLS1	500 mg dw	Collagenase
Collagenase Type 2	CLS2	500 mg dw	Deoxyribonuclease I
Collagenase Type 3	CLS3	500 mg dw	Elastase
Collagenase Type 4	CLS4	500 mg dw	Hepatocyte Isolation System
Trypsin	TRL	500 mg dw	Hyaluronidase
Hyaluronidase	HSE	50,000 Units	Neonatal Cardiomyocyte Isolation System
Elastase	ESL	100 mg P	Neutral Protease (Dispase®)
Papain	PAPL	100 mg P	Papain
Deoxyribonuclease I	DP	25 mg dw	Papain (Neural) Dissociation System
Neutral Protease (Dispase®)	NPRO	10 mg dw	STEMxyme® 1 & 2 Collagenase/Neutral Protease Blends
Trypsin Inhibitor	SIC	100 mg dw	Trypsin
			Trypsin Inhibitor

dw = dry weight
P = protein

* The code which appears in the table for each of the enzymes corresponds to the codes found in our regular price list.

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