Overview about Collagenase- and Dispase® Enzyme preparations

Collagenase Type	Product Code	0.22µ Filtered*	Speciality	Applications*
Non-Animal free Collagenases isolated from *Clostridium histolyticum*.				
Type 1	CLS-1		partially purified collagenase has the original balance of collagenase, caseinase, clostripain and tryptic activities.	Dissociation of tissues, such as Adipose, Adrenal, Epithelial, Liver, Lung
	CLSS-1	✓		
Type 2	CLS-2		higher relative levels of protease activity, particularly clostripain.	Dissociation of Heart, Muscle, Liver, Thymus, Bone, Cartilage
	CLSS-2	✓		
Type 3	CLS-3		lowest levels of secondary proteases.	Dissociation of Mammary Cells
	CLSS-3	✓		
Type 4	CLS-4		especially low in tryptic activity to limit damage to membrane proteins and receptors.	Dissociation of Pancreatic Islets and other applications where receptor integrity is crucial
	CLSS-4	✓		
Type 5	CLS-5		higher collagenase and caseinase values	
	CLSS-5	✓		
Type 6	CLS-6		high collagenase activity enriched for Type II (col H) collagenase relative to Type I (col G).	Dissociation of tissues rich in Type II collagen such as Cartilage, Intervertebral Discs, and other connective tissues.
Type 7	CLS-7		Collagenase and caseinase activities four-fold higher than Types 1 and 2.	
Chromatograph. Purified	CLSPA		contain minimal secondary proteolytic activities along with high collagenase activity.	Collagen Studies, Tissue Digestion in combination with other proteases.
	CLSPANK	✓		
Animal Free (AF) Collagenases** isolated from cultures completely devoid of animal-based components designed for bioprocessing applications.				
Type A	CLSAFA		is the original AF grade designed to have collagenase and secondary proteases similar to Types 1 and 2 collagenase	Stem Cell & Tissue Bioprocessing
	CLSAFAS	✓		
Type B	CLSAFB		higher collagenase and caseinase activities than CLSAFA	Stem Cell & Tissue Bioprocessing.
	CLSAFBS	✓		
Type C	CLSAFC		has especially low tryptic activity similar to Type 4 collagenase.	Stem Cell & Tissue Bioprocessing
	CLSAFCS	✓		
Type D	CLSAFD		two-to-three-fold higher specific activity than CLSAFA.	Stem Cell & Tissue Bioprocessing
Collagenase/Dispase AF Blend	STZ1	✓	STEMxyme® AF Collagenase/Neutral Protease (Dispase®) blends for primary and stem cell isolation.	Stem Cell & Tissue Bioprocessing
	STZ2	✓		
Chromatograph. Purified	CLSAFP		Purified collagenase, contains minimal secondary proteolytic activities along with high collagenase activity (≤ 50 caseinase units per milligram)	Bioprocessing
Animal Free Dispases ®/ Neutral Proteases** isolated from *Bacillus polymyxa*.				
Chromatograph. purified	NPRO	✓	extremely stable, non-specific but gentle metalloprotease. It cleaved fibronectin, collagen IV, and collagen I, but not collagen V or laminin. It is commonly used in combination with Collagenase.	Cell Isolation, to separate skin epidermis from dermis leaving intact epithelial sheets and stem cell, hepatocyte and other cell isolation applications, cell detachment (subculture) and prevention of cell aggregation.
Partially purified	NPRO2	✓		

*Each Collagenase type is provided in 0.22µm filtered preparations. These preparations come in a pre-packaged form for enhanced purity and consistency, ensuring convenient reconstitution and use in cell isolation and culture procedures.

**Excitingly, we now offer Animal-Free Collagenases, Dispases® and Collagenase/Dispase® Blends derived from cultures grown in medium completely devoid of animal-based components. These formulations are ideal for bioprocessing applications where the introduction of potential animal-derived pathogens must be prevented.

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