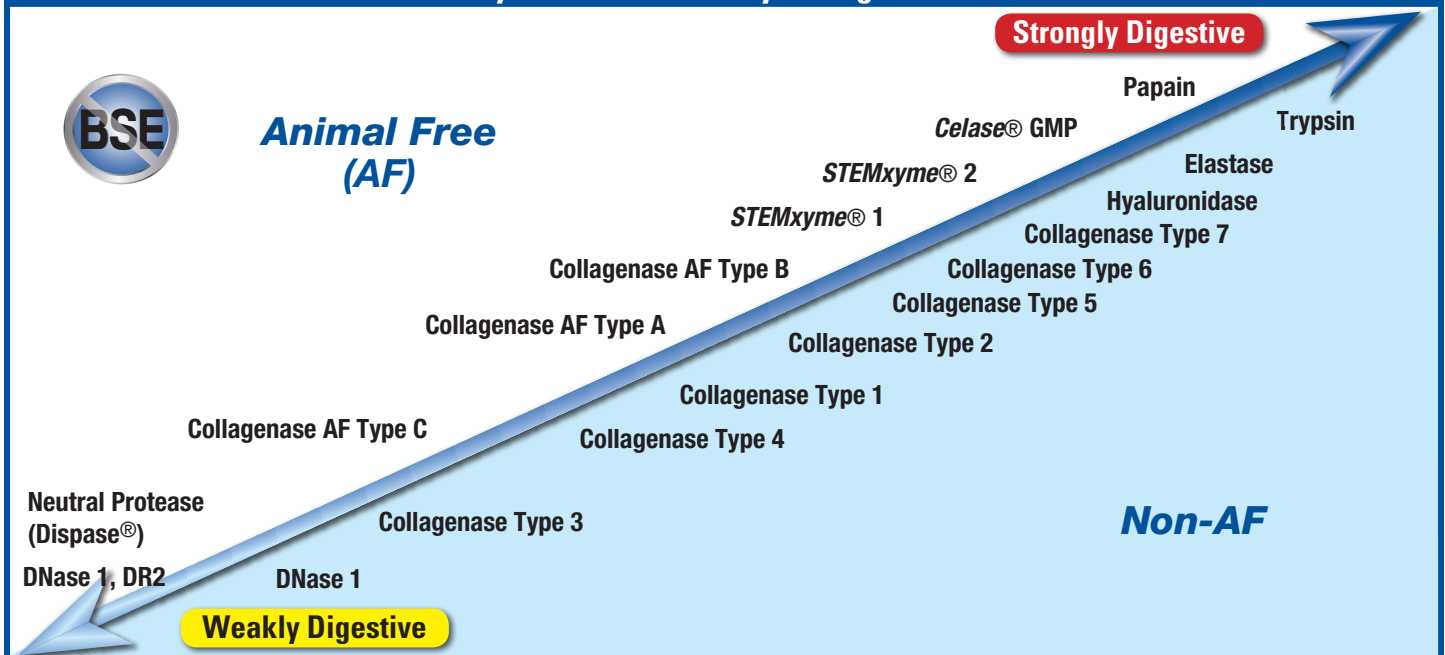


# Isolating Primary and Stem Cells?

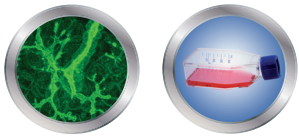
## Primary Cell Isolation Enzyme Digestion Scale



## Worthington Collagenase Products, Specifications and Applications Table

Product Code	Collagenase	Caseinase	Clostripain	Tryptic	Description/Applications*
	CDU/mgdw	u/mgdw	u/mgdw	u/mgdw	
<b>Partially Purified</b>					
CLS-1	≥125	≥200	≤4.0	≤0.5	Balanced activities/Adipose, Adrenal, Epithelial, Liver, Lung
CLS-2	≥125	≥200	≥3.5	≥0.1	Higher proteolytic activities/Bone, Heart, Liver, Thymus
CLS-3	≥100	≥50	≤3.0	≤0.3	Lower proteolytic activities/Mammary
CLS-4	≥160	≥100	≤3.0	≤0.1	Lower tryptic activity/Pancreatic Islets
CLS-5	≥450	≥450	≤3.0	≤0.3	Higher collagenase and caseinase activities
CLS-6 <b>NEW!</b>	≥400	≥1,000	≤4.0	≤0.5	Higher activity with caseinase to collagenase ratio ~2:1, designated to be enriched for Type II (co/H) collagenase relative to Type I (co/G)
CLS-7 <b>NEW!</b>	≥1,000	≥2,000	≤8.0	≤0.5	Contains collagenase and caseinase activities 4X higher than collagenase types 1 & 2
CLSS-1	≥125	≥200	≤4.0	≤0.5	0.22μ Filtered CLS-1 in 50mg & 1gm vials
CLSS-2	≥125	≥200	≥3.5	≥0.1	0.22μ Filtered CLS-2 in 50mg & 1gm vials
CLSS-3	≥100	≥50	≤3.0	≤0.3	0.22μ Filtered CLS-3 in 50mg vials
CLSS-4	≥160	≥100	≤3.0	≤0.1	0.22μ Filtered CLS-4 in 50mg & 1gm vials
CLSS-5	≥450	≥450	≤3.0	≤0.3	Higher collagenase and caseinase activities
CLSH	≥125	≥200	≤4.0	≤0.5	0.22μ Filtered, ≥22,500U CLS-1 & 30U ESL component of HIS kit
<b>Animal Free</b>					
CLSAFA	≥150	≥150	≤8.0	≥0.1	Balanced Activities/AOF Stem Cell & Tissue Bioprocessing
CLSAFB	≥300	≥300	≤5.0	≤0.5	Higher Activities/AOF Stem Cell & Tissue Bioprocessing
CLSAFC	≥200	≥150	≤3.0	≤0.1	Lower Protease Activities/AOF Stem Cell & Tissue Bioprocessing
CLSAFAS	≥150	≥150	≤8.0	≥0.1	0.22μ Filtered AOF CLSAFA in 50mg vials
CLSAFBS	≥300	≥300	≤5.0	≤0.5	0.22μ Filtered AOF CLSAFB in 50mg vials
CLSAFCS	≥200	≥150	≤3.0	≤0.1	0.22μ Filtered AOF CLSAFC in 50mg vials
<b>STEMxyme® Animal Free Blends</b>					
STZ1	≥250	≥1,000	≤5.0	≤0.5	0.22μ Filtered CLSAFB & NPRO/AOF Stem Cell & Tissue Bioprocessing
STZ2	≥250	≥2,000	≤5.0	≤0.5	0.22μ Filtered CLSAFB & NPRO/AOF Stem Cell & Tissue Bioprocessing
<b>Chromatographically Purified</b>					
CLSPA	≥500	≤50	≤2.0	≤0.25	Low Protease/Collagen Studies, Tissue Digestion combined with other proteases
CLSPANK	≥500	≤50	≤2.0	≤0.25	0.22μ Filtered, ≥1,500U CLSPA component of NCIS kit

\* Correlations between type and effectiveness with different tissues have been good, but not perfect, and may be dependent partly on parameters of use and objectives as well as lot-to-lot variations. For more information see the Collagenase Sampling Program information.



# Isolating Primary and Stem Cells?

## FREE Collagenase Sampling Program!

The demand for safer biologicals and biopharmaceuticals has led Worthington to introduce several *Animal Free* (AF) enzymes for primary/stem cell isolation, tissue culture research and vaccine bioprocessing. Scientists working in regenerative medicine applications including the isolation of stem cells, tissue transplantation, artificial organ development and vaccine production would benefit from AF enzymes since there is no risk of potential BSE/TSE and/or mammalian viruses contaminants. In addition, the use of AF enzymes eliminates many of the quality and regulatory issues and concerns associated with enzymes purified from animal sources.

The lot-to-lot variation which is typical of enzyme preparations makes it important to pre-test a particular lot of enzyme you are planning to use in your experiment. Many years ago we found that the most practical approach for the researcher is to pre-sample several different lots of collagenase at a time and select the best of the group. As the world's leading manufacturer of collagenase, Worthington is able to offer the greatest number of different lots at any given time and recommend specific lots for an application. Regular grades of Worthington *Animal Free* Collagenase are also available for sampling.

**There is no charge for participating in the collagenase sampling program.** Under the program, individual researchers are provided with 100 mg samples of up to three different lots of collagenase for evaluation in their own assay systems. A period of 60 days is allowed for your evaluation of these samples. A minimum of 3 grams of each lot will be placed on HOLD, reserved in your name. When you determine which lot performs best for you, simply specify the lot desired when ordering.

To become part of this program, or to discuss any of the Worthington products, just call our Technical Service group toll-free at 800.445.9603 from anywhere in the United States or Canada, email [techservice@Worthington-Biochem.com](mailto:techservice@Worthington-Biochem.com) or through our website:

**Worthington-Biochem.com**

also includes



***New Animal Free Collagenase Now Available!***

**Current Available Lots With Activity Profiles**

**Interactive Collagenase Lot Selection Tool**

**Online Collagenase Sample Request Form**

