Institution	Enzyme Used	Enzyme Dose	n	Mean IEQ ± 1 SD/g Pancreas	Switch Time Min	Undigested (%)
2005 **Geneva University Hospital**[1]	Liberase HI	2142 WU & 105 DMC U/organ	9	2360 ± 1,350	17 ± 3.0	NR
	NB-1 Collagenase/NB Protease	2001 WU & 30 DMC U/organ	14	4020 ± 1240	22 ± 3.0	NR
2009 **University of California San Francisco**[2]	Liberase HI	2420 ± 85 WU & 71,500 caseinase U/organ	9	4888 ± 1683	16 ± 1.7	28.5*
	NB-1 Collagenase/NB Protease	1747 ± 212 WU & 244 ± 21 DMC U/organ	14	5862 ± 1843	16 ± 2.0	32*
2010 **Uppsala University**[3]	Liberase HI	≤ 100 g 1 bottle ≥ 100 g 1.3 bottles	101	4010 ± 2332	26.9 ± 5.0	15.6 ± 1.3
	NB-1 Collagenase/NB Protease	≤ 100 g 1 bottle NB-1 & 130 DMC U NB Protease/organ ≥ 100 g 1.3 bottles NB-1 & 150 DMC U NB Protease/organ	96	2979 ± 1460	26.4 ± 5.9	18.0 ± 1.0
2010 **University of Alberta**[4]	Liberase MTF	NR	17	4249 ± 1748	17.5 ± 5.4	NR
	NB-1 Collagenase/NB Protease	NR	24	3836 ± 1911	17.0 ± 4.9	NR
2010 **University of Minnesota**[5]	Collagenase HA/Thermolysin	1 bottle HA & 12 mg Thermolysin/organ	14	4147 ± 1759	20.1 ± 4.1	18.9
	NB-1 Collagenase/NB Protease	1600-4696 WU & 100-404 DMC U/organ	27	2134 ± 1524	23.7 ± 5.5	21.5
2012 **University of Minnesota**[6]	New Enzyme Mixture: Collagenase HA & NB Protease	18-20 WU Collagenase HA & 1.25-1.5 DMC U/g tissue	12	5329 ± 2519	16.3 ± 5.5	18.6
	Liberase MTF	2200-2615 WU & 78,600-165,960 NP U/organ	4	2217 ± 1405	20.7 ± 2.1	19.6
	Collagenase HA/Thermolysin	2018-2200 WU & 3.15-3.42 million NP U/organ	37	3467 ± 1698	21.2 ± 4.2	18.8
	NB-1 Collagenase/NB Protease	1600-4400 WU & 96-300 DMC U/organ	24	2202 ± 1403	23.6 ± 5.5	20.9
2015 **City of Hope**[7]	Liberase HI	26.2 ± 10.9 WU & 781 ± 388 caseinase U/g tissue	61	3109 ± 1870	10.7 ± 2.8	36.4
	Liberase MTF	31.2 ± 8.6 WU & 1873 ± 762 caseinase U/g tissue	115	2773 ± 1781	11.6 ± 2.3	26.5
	Collagenase NB-1/NB Protease	27.2 ± 6.7 WU & 1.5 ± 0.6 DMC U/g tissue	40	2625 ± 1413	12.3 ± 3.2	38.3
2016 **University of Minnesota**[8]	Rec Collagenase/BP Protease	C2: 12 or 20 WU & C1: 100K or 200 K & BP Protease: 23,400 U/g body-tail pancreas	12	5209 ± 2267	18.7 ± 4.0	13.6 ± 4.0
	New Enzyme Mixture	18-20 WU Collagenase HA & 1.25-1.75 DMC U/g body-tail pancreas	12	4727 ± 2125	15.0 ± 2.0	16 ± 9.0
	CIzyme Collagenase HA + CIzyme Thermolysin	1 bottle HA & 12 mg Thermolysin/organ	18	3505 ± 2412	20.6 ± 4.4	19 ± 5.1
	Serva Collagenase NB-1 + NB Protease	1600-4400 WU & 96-300 DMC U/organ	12	2630 ± 1772	25 ± 5.0	23 ± 10
2018 **City of Hope**[9]	Collagenase Gold/BP Protease	9.9 ± 0.6 WU & 28,682 ± 2216 NP U/g tissue	8	3503 ± 2062	12.6 ± 2.0	32.1
	Liberase MTF	25 ± 0.5 WU & 1208 ± 46.5 NP U/g tissue	48	3551 ± 2162	12.3 ± 2.0	20.9
	NB-1 Collagenase/NB Protease	17.5 ± 1.2 WU & 2.2 ± 0.16 DMC U/g tissue	15	2918 ± 1069	12.9 ± 1.2	15.8
2018 **University of Louisville**[10]	Rec Collagenase/BP Protease	C1: 100,000 CDA U & C2: 12 WU & 23,400 NP U/g tissue	7	5535 ± 830	20 ± 2.1	16.7
	Rec Collagenase/BP Protease	C1: NR CDA U & C2: 20 WU & 23,400 NP U/g tissue	5	5455 ± 918	19 ± 2.9	15.7
	Collagenase HA/BP Protease	Collagenase 12 WU & 23,400 NP U/g tissue	5	2582 ± 925	22 ± 3.8	37.8
	Collagenase HA/BP Protease	Collagenase 20 WU & 23,400 NP U/g tissue	6	4946 ± 974	18 ± 5.1	20.1

CDA U = collagen degrading activity U DMC U = dimethyl casein U NP U= Neutral Protease U NR = Not reported WU = Wunsch Units *see https://icr.coh.org/docs/Abstracts/10032008/Szot.pdf

Casinase U for Liberase HI and Liberase MTF are not equivalent. | Mass and activity of Roche MTF thermolysin and VitaCyte thermolysin are not equivalent.

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