

Enzymes In Digestion

Region	Enzyme	Source	pH	Substrate>>Product	Activator
Mouth	Ptyalin (Amylase)	Salivary Glands	6.8	30% Starch >> Maltose	
Stomach	Mucus + Bicarbonate	Mucus Neck Cells	1.8	Protect Cells From HCl Lubrication	
	Pepsinogen	Peptic/Chief Cells	1.8		HCl
	Pepsin	From Pepsinogen	1.8	Protein >> Proteoses + Peptones	
	Renin	Peptic/Chief Cells	1.8	Caesin >> Proteoses + Peptones	(in kids only)
	HCl	Oxyntic Cells		Activates Pepsin. Bolus >> Chyme	
Duodenum	Enterokinase	Intestinal Mucosa	7.8	Trypsinogen >> Trypsin	
	Trypsinogen	Pancreatic Juice	7.8		Enterokinase
	Trypsin	Trypsinogen	7.8	Proteins+Peptones >> Dipeptides	
	Chymotrypsin(ogen)		7.8	Proteins+Peptones >> Dipeptides	Trypsin
	Carboxypeptidase (Pro form)	Pancreatic Juice	7.8	Proteins+Peptones >> Dipeptides	Trypsin
	Lipase	Pancreatic Juice	7.8	Fats >> Di/Monoglycerides	Trypsin Bile
	Pancreatic α -Amylase	Pancreatic Juice	7.8	Starch >> Disachharides	Trypsin
	Nucleases	Pancreatic Juice	7.8	Nucleic Acids >> Nucleosides	Trypsin
Duodenum	Nucleosidases	Succus Entericus	7.8	Nucleosides >> Sugars + Bases	
	Dipeptidases	Succus Entericus	7.8	Dipeptides >> Amino Acids	
	Lipase	Succus Entericus	7.8	Glycerides >> Fatty Acis + Glycerol	
	Maltase	Succus Entericus	7.8	Maltose >> Glucose + Galactose	
Duodenum	Bile	Liver	7.8	Fats >> Emulsions Lipase activator.	
Duodenum	Pancreatic Juice	Pancreas	7.8	Protein Digestion. Neutralizes Acidic Chyme.	
Intestine	Succus Entericus	Brunner's Glands	7.8		