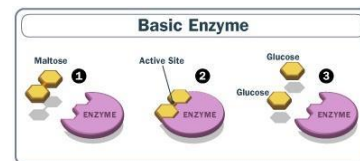




COSMEDIKA USA, INC.

PBSerum Bio-Genetic Enzymes

An enzyme is defined as any complex chemical produced by living cells that is a biochemical catalyst. Bio-Genetic Enzymes are the same as those produced by our body, therefore they have a higher capacity of penetration and absorption.



1. LIPASES are enzymes that break down fats into smaller molecules such as fatty acids and glycerol. Our stomach cells make a small amount of lipase, called gastric lipase.

Our “**Lipase PB500**” enzyme dissolves locally accumulated fat. Found in our **PBSerum Slim Topic**.

2. COLLAGENASES are enzymes that break down the peptide bonds in collagen. Collagen, a key component of the animal extracellular matrix, is made through cleavage of pro-collagen by collagenase once it has been secreted from the cell. This stops large structures from forming inside the cell itself. Collagenase can be made by the body as part of its normal immune response.

Our “**Collagenase CoL GH PB2200**” enzyme dissolves adipose nodules in advanced cellulite. Found in our **PBSerum Smooth Topic**.

3. HYALURONASES are a family of enzymes that catalyze the degradation of hyaluronic acid (HA). Karl Meyer classified these enzymes in 1971 into three distinct groups, a scheme based on the enzyme reaction products. The three main types of hyaluronidases are two classes of eukaryotic endoglycosidase hydrolases and a prokaryotic lyase-type of glycosidase. By catalyzing the hydrolysis of hyaluronan, a constituent of the extracellular matrix (ECM), hyaluronidase lowers the viscosity of hyaluronan, thereby increasing tissue permeability. It is, therefore, used in medicine in conjunction with other drugs to speed their dispersion and delivery.

Our “**Hyaluronidase PB3000**” enzyme breaks the polysaccharids of any excessive concentration responsible for the accumulation of fluids. Found in our **PBSerum Drain Topic**

4. KERATINASES are enzymes that support the enzymatic decomposition of keratin. Used to soften keratin, causing the outer layer of the skin to loosen and shed it improves the skin's moisture binding capacity, which is beneficial in treatments of dehydrated skin.

Our “**Keratinase PB333**” is an intelligent active ingredient that recognizes the skin’s needs and only acts where required. Moreover, it enhances the efficacy of the other product components, multiplying their penetrating capacity by four. Its exfoliating effect encourages skin renewal, revitalizing it and increasing firmness. Found in all our facial products to allow other ingredients better penetration and absorption.

Bio-Genetic Enzymes Used In PBSerum Cosmeceuticals

Body Line Products	Active Components
PBSerum Slim Topic	Lipase PB500 , Hyaluronic Acid
PBSerum Smooth Topic	Collagenase CoL GH PB220
PBSerum Drain Topic	Hyaluronidase PB3000

Facial Line Products	Active Components
Renewal Vit Equilibrium Complex	Keratinase PB333 , Vitamin A, Vitamin C, Vitamin E
Renewal Multi Vit Complex	Keratinase PB333 , Lipase PB500 , Vitamin B1, Vitamin B2, Vitamin B3, Vitamin B5, Vitamin B6
Renewal Vit Radiant Complex	Keratinase PB333 , Vitamin C
Wrinkle Hyaluronic Complex	Keratinase PB333 , Hyaluronic Acid BPM
Extreme Firmness Complex	Keratinase PB333 , Collagenase CoL GH PB2200 , DMAE, Hyaluronic Acid BPM, Vitamin C