

AMY1A

Native Human Amylase alpha 1A

Catalog No.	CSI10399A	Quantity:	1 kU
	CSI10399B		10 kU
	CSI10399C		25 kU

Alternate Names:	Alpha-amylase 1A, Salivary alpha-amylase, 1,4-alpha-D-glucan glucohydrolase 1
Description:	Alpha-amylase 1A is a digestive enzyme classified as a saccharidase (an enzyme that cleaves polysaccharides). Human alpha amylase(s) are calcium metalloenzymes, unable to function in the absence of calcium. By acting at random locations along the starch chains, alpha amylases cleaves long-chain carbohydrates, ultimately yielding malto triose and maltose from amylose, or maltose, glucose and "limit dextrin" from amylopectin. Because human salivary amylase can act anywhere on the substrate, human alpha amylase enzyme tends to be faster acting than beta amylase.
UniProt ID:	P0DUB6
E.C. Number:	3.2.1.1
Source:	Human saliva
Molecular Weight:	57.8 kDa
Formulation:	Lyophilized from Tris chloride, Mannitol, pH 7.2
Purity:	≥90% by SDS-PAGE
Biological Activity:	290 U/ml
Specific Activity:	570 U/mg
Unit Definition:	One unit catalyzes hydrolysis of one micromole of 2-chloro-4-nitrophenyl-alpha-D-maltotrioxide to yield 2-chloro-4-nitrophenol per minute at 37°C.
Protein:	0.50 mg protein/mg (Coomassie)
Contaminants:	Lipase: <0.01%, Protease: <0.01%, Ammonia: <0.01 µmole/mg
Reconstitution:	Centrifuge prior to opening. Add saline (1 mg/mL) to the vial of product.
Storage & Stability:	Store desiccated at -20 °C, Reconstitute, aliquot and store at -20 °C to -80 °C. Avoid repeated freeze-thaw cycles.
Expiration Date:	July 12, 2020
Statement:	Non-Infectious Disease Certification: Non-reactive for HIV-1/HCV/HBV by NAT; HBsAg, HCV Ab, HIV-1&2 Ab and RPR by currently approved FDA methods. However, because no test method can offer complete assurance that infectious agents are absent, this material should be handled at Bio-Safety Level 2 (BSL 2) as recommended for potentially infectious human serum or blood specimen in the CCD/NIH manual "Biosafety in Microbiological and Biomedical Laboratories", 2009.

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