Creative Enzymes®

Native Human Cathepsin B

Cat. No. NATE-0169

Lot. No. (See product label)

Introduction

Description	Cathepsin B has been found to cleave procaspase 1 and procaspase 11 and to induce apoptosis in digitonin-permeabilized cells. Translocation of cathepsin B from the cytoplasm to the nucleus contributes to bile salt induced apoptosis of rat hepatocytes. Levels of cathepsin B in PC12 cells significantly decrease 12 to 24 hours after apoptosis is induced.
Applications	Cathepsin B is a lysosomal cysteine proteinase which hydrolyzes proteins with a broad specificity for peptide bonds. Cathepsin B may be a useful tool in Alzheimer's research, as it may have a role in the natural defense against the disease. Cathepsin B may be used to cleave procaspase 1 and procaspase 11, and to induce apoptosis in digitonin-permeabilized cells.
Synonyms	CTSB; cathepsin B; cathepsin B1; APPS; CPSB; EC 3.4.22.1; 9047-22-7; cathepsin II; CatB

Product Information

Species	Human
Source	Human placenta
Form	Lyophilized powder containing phosphate buffer salts
EC Number	EC 3.4.22.1
CAS No.	9047-22-7
Activity	> 5 units/mg protein
Composition	Protein, ~50% Lowry
Pathway	Antigen processing and presentation, organism-specific biosystem; Antigen processing and presentation, conserved biosystem; Immune System, organism-specific biosystem; Innate Immune System, organism-specific biosystem; Lysosome, organism-specific biosystem; Lysosome, conserved biosystem; Toll Receptor Cascades, organism-specific biosystem
Function	cysteine-type endopeptidase activity; cysteine-type peptidase activity; kininogen binding; peptidase activity; peptide binding; protein binding
Unit Definition	One unit will liberate 1 nanomole of 7-amino-4-methylcoumarin from Z-Arg-Arg 7-amido-4-methylcoumarin per min at pH 6.0 at 40°C.