

## 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.