

## Native Porcine Calpain 1

Cat. No. NATE-1625

Lot. No. (See product label)

### Introduction

**Description** Calpain 1 is a neutral calcium-dependent cysteine protease containing the EF-hand motif. The protease consists of two subunits; the larger subunit has four domains that are homologous with papain and calmodulin. The smaller subunit has one domain that shares homology with calmodulin. It is activated by micromolar levels of calcium and hence, it is also called as micro-calpain. Its activation leads to cellular protein degradation, neuronal cell degeneration, and autoimmune demyelinating diseases such as multiple sclerosis.

**Synonyms**  $\mu$ -calpain; calcium-activated neutral protease I; EC 3.4.22.52

### Product Information

**Species** Porcine

**Source** Porcine Erythrocytes

**Form** Frozen

**Formulation** 20 mM imidazole-HCl, 5mM  $\beta$ -mercaptoethanol, 1 mM EDTA, 1 mM EGTA, 30% glycerol, pH 6.8.

**Molecular Weight** 110000

**Purity**  $\geq$  95% by SDS-PAGE

**Unit Definition** One unit is defined as the amount of enzyme that will hydrolyze 1 pmol Suc-LLVY-AMC in 1 minute at 25°C using the Calpain Activity Assay Kit, Fluorogenic. Note 1 caseinolytic unit=9 fluorogenic units.

### Storage and Shipping Information

**Storage** -70°C or lower; avoid freeze/thaw cycles

**Stability**  $>$  1 year