

Active Native Porcine CAPN2 protein

Cat. No. CAPN2-22P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Native Porcine CAPN2 purified from porcine kidney.
Species	Porcine
Source	Porcine kidney
Description	The two major isoforms, calpain I (-form) and calpain II (m-form), differ in their calcium requirement for activation. Calpain I requires only micromolar amounts of calcium ($EC_{50} = 2 \text{ M}$), while calpain II requires millimolar amounts ($EC_{50} = 1 \text{ mM}$). Calpains are heterodimers of 80 kDa and 30 kDa subunits. The 80 kDa unit has the catalytic site and is unique to each isozyme. The 30 kDa unit is a regulatory subunit and common to both calpain I and calpain II. The 80 kDa unit consists of four domains (I-IV). The 30 kDa unit has two domains (V and VI). Domain I is partially removed during autolysis. Domain II is the protease domain. Domain III exhibits a homology with typical calmodulin binding proteins and interacts with calcium binding domains (IV and VI) and frees domain II for protease activity. Domain IV is a calcium binding domain. Domain V contains a hydrophobic region and is essential for calpain interaction with membranes. Domain VI is a calcium binding domain.
Form	Liquid
Bio-activity	1000 units/mg
Molecular Mass	109000

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Stability

Avoid freeze/thaw. Following initial thaw, aliquot and freeze (-70 centigrade). The enzyme will lose activity upon storage at 4 centigrade.

Storage

Store at -80 centigrade.

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