

Procathepsin K (human), (recombinant)

Cathepsin K, a member of the papain family of cysteine proteases, acts upon proteins such as collagen, AL amyloid, kinin and elastin. It is a lysosomal protease expressed primarily in osteoclasts, but also in other cell types such as macrophages. It functions in bone remodeling and is implicated in disease states such as atherosclerosis, arthritis and pycnodysostosis.

Citations: 1

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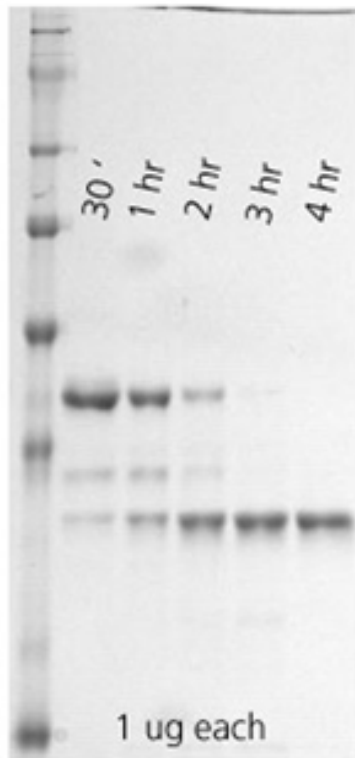
Ordering Information

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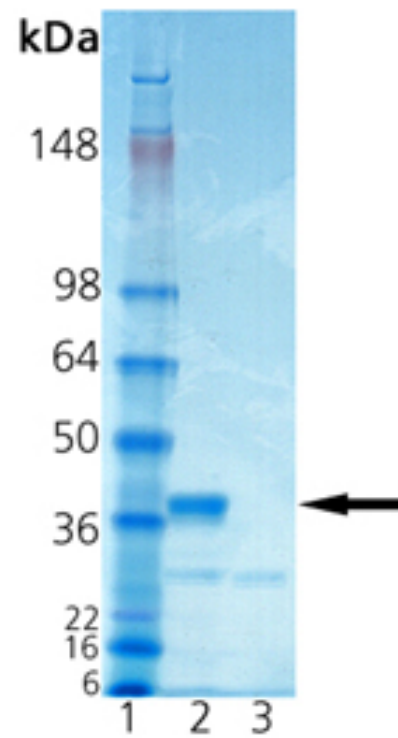
BML-SE367-0010	10µg
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Manuals, SDS & CofA

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Activation of procathepsin K at 22°C. Lane 1, size marker. Lane 2, 0.5 hour. Lane 3, 1 hour. Lane 4, 2 hours. Lane 5, 3 hours. Lane 6, 4 hours. 1 ug per lane, loaded after EtOH precipitation/wash and resuspension in SDS-PAGE sample buffer.



SDS-PAGE Analysis: Lane 1: MWM; Lane 2: 1.0 µg of purified Procathepsin K; Lane 3: 1.0 µg Cathepsin K after activation at low pH for 3 hours.

Handling & Storage

Use/Stability	-80°C. After initial defrost, aliquot product into individual tubes and refreeze at -80°C. Avoid repeated freeze/thaw cycles and extended periods unfrozen. This enzyme is stable when stored as received under the above conditions. Procedures such as dil
Handling	Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -80°C.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Activity	To activate proenzyme, add 32.5mM NaOAc, pH 3.5, to 20% of procathepsin K volume (e.g., 5µl procathepsin K + 1µl 32.5mM NaOAc, pH 3.5), and incubate at room temperature for 25-30 minutes, or at +4°C for approximately seven hours.
Alternative Name	Procathepsin O, Procathepsin O2, Procathepsin X
Application Notes	Useful tool to study enzyme kinetics, cleave target substrates and screen for inhibitors.
Formulation	Liquid. In 27.8µl 20mM sodium phosphate, pH 6.9, 500mM NaCl, 1 mM EDTA.
MW	35.3kDa
Purity	≥95% (SDS-PAGE)
Purity Detail	Purified by multi-step chromatography.
Source	Produced in insect cells. Full length glycosylated human procathepsin K (also known as cathepsin O or cathepsin O2) cloned from human cDNA. Produced in a baculovirus expression system.
UniProt ID	P43235



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