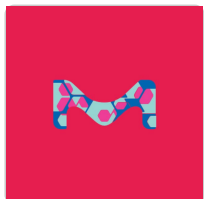


Type in Product Names, Product Numbers, or CAS Numbers to see suggestions.

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Documents

[↓ SDS](#)[🔍 COO/COA](#)[📄 Specification Sheet](#)[More Documents](#) »**B4882** ▶ **Sigma-Aldrich®**

Bromelain from pineapple stem

★★★★★ (0)

≥3 units/mg protein

CAS Number: **37189-34-7**Enzyme Commission number: **3.4.22.32 (BRENDA, IUBMB)**EC Number: **253-387-5**MDL number: **MFCD00081423**

NACRES: NA.54

SKU	Pack Size	Availability	Price	Quantity	
B4882-10G	10 G	✓ Available to ship on October 10, 2022 Details...	€108.00	− +	i
B4882-25G	25 G	✓ Estimated to ship on November 10, 2022	€182.00	− +	i
B4882-100G	100 G	✓ Available to ship on October 10, 2022 Details...	€571.00	− +	i
B4882-500G	500 G	✓ Estimated to ship on November 04, 2022	€1,900.00	− +	i
B4882-1KG	1 KG	✓ Estimated to ship on November 10, 2022	€2,490.00	− +	i

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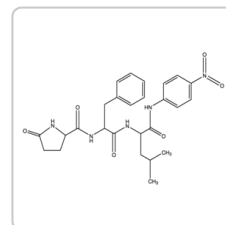
RECOMMENDED PRODUCTS



Sigma-Aldrich

B5144**Bromelain from pineapple stem**

5-15 units/mg protein

[View Price and Availability](#)

Sigma-Aldrich

P3169**pGlu-Phe-Leu p-nitroanilide**

protease substrate

[View Price and Availability](#)

PROPERTIES

form lyophilized powder

Quality Level **200**

specific activity ≥ 3 units/mg protein

composition Protein, $\geq 30\%$ biuret

storage temp. -20°C

Looking for similar products? Visit [Product Comparison Guide](#)

Related Categories

Proteases

DESCRIPTION

Application

Bromelain from pineapple stem has been used:

- to evaluate the aqueous micellar two-phase systems composed of ionic liquids as co-surfactants
- as a positive control in sodium dodecyl sulfate (SDS) / polyacrylamide gel electrophoresis (PAGE) and in cells proliferation assay
- to study its potential analgesic effect and to evaluate its hydrolyzing effects on proenkephalin (PENK)-derived peptides containing enkephalin sequences

Bromelain may be used to inhibit the biosynthesis of proinflammatory prostaglandins. It may be used to reduce clotting efficiency. Bromelain, from pineapple stem, has been used to make enzymatic hydrolysates of honeybee-collected pollen .

Biochem/physiol Actions

Bromelain is a cysteine endopeptidase with broad specificity for cleavage of proteins. Bromelain may be from a stem or piece of fruit. Product B4882 is from pineapple stem. Product P3169 (pGlu-Phe-Leu-p-nitroanilide) may be used as a chromogenic substrate for the assay of bromelain.

Unit Definition

One unit will release 1.0 micromole of p-nitrophenol from N-alpha-CBZ-L-Lysine p-nitrophenyl ester per minute at pH 4.6 at 25 °C. One old titrimetric unit (pH 4.5 at 45 °C) is equivalent to approximately 1.7 new units (pH 4.6 at 25 °C).

Preparation Note

The product may be suspended in acetate buffer, pH 4.5 at 1 mg/mL concentration, yielding a hazy, off-white suspension.

RELATED PRODUCTS

Inhibitor

E3132

E-64, protease inhibitor

[View Pricing](#)

Substrate

P3169

pGlu-Phe-Leu p-nitroanilide, protease substrate

[View Pricing](#)

C3637

Z-L-Lys-ONp hydrochloride

[View Pricing](#)

SAFETY INFORMATION

Pictograms



GHS07,GHS08

Signal Word

Danger

Hazard Statements

H315 - H319 - H334 - H335

Precautionary Statements

P261 - P264 - P271 - P280 - P302 +
P352 - P305 + P351 + P338

Hazard Classifications

Eye Irrit. 2 - Resp. Sens. 1 - Skin
Irrit. 2 - STOT SE 3

Target Organs

Respiratory system

Storage Class Code

11 - Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Flash Point(C)

Not applicable

DOCUMENTATION

Certificate of Analysis

Enter Lot Number to search for Certificate of Analysis (COA).

Lot Number

e.g. 023J5431

How to enter Lot Number (COA)

Search

Certificate of Origin

Enter Lot Number to search for Certificate of Origin (COO).

Lot Number

e.g. 023J5431

How to enter Lot Number (COO)

Search

More Documents

[Enzyme Explorer](#)

[SDS](#)

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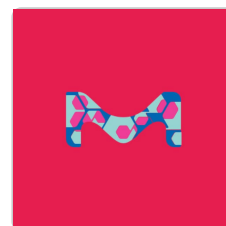
Millipore

1.07144

Papain

(from *Carica papaya*) water-soluble 30000 USP-U/mg for biochemistry EC 3.4.22.2

[View Price and Availability](#)



Sigma-Aldrich

76216

Papain from *Carica papaya*

solution, light brown, ≥ 10 U/mg protein (~25 mg/ml)

[View Price and Availability](#)



PEER REVIEWED PAPERS

Drug Carriers Based on Graphene Oxide and Hydrogel: Opportunities and Challenges in Infection Control Tested by Amoxicillin Release.

Anna Trusek et al.

Materials (Basel, Switzerland), 14(12) (2021-07-03)

Graphene oxide (GO) was proposed as an efficient carrier of antibiotics. The model drug, amoxicillin (AMOX), was attached to GO using a peptide linker (Leu-Leu-Gly). GO-AMOX was dispersed in a hydrogel to which the enzyme responsible for releasing AMOX from

Characterization of a partially folded intermediate of stem bromelain at low pH.

Soghra Khatun Haq et al.

European journal of biochemistry, 269(1), 47-52 (2002-01-11)

Equilibrium studies on the acid included denaturation of stem bromelain (EC 3.4.22.32) were performed by CD spectroscopy, fluorescence emission spectroscopy and binding of the hydrophobic dye, 1-anilino 8-naphthalene sulfonic acid (ANS). At pH 2.0, stem bromelain lacks a well defined

In vitro antiproliferative activity of fresh pineapple juices on ovarian and colon cancer cell lines

Gani MBA, et al.

International Journal of Peptide Research and Therapeutics, 21(3), 353-364 (2015)

Enkephalin related peptides are released from jejunum wall by orally ingested bromelain

Orlandi-Mattos PE, et al.

Peptides, 115, 32-42 (2019)

Recovery of bromelain from pineapple stem residues using aqueous micellar two-phase systems with ionic liquids as co-surfactants

Vicente FA, et al.

Process. Biochem., 51(4), 528-534 (2016)

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PROTOCOLS AND ARTICLES

Protocols

HPLC Analysis of Bromelain on TSKgel® BioAssist® S vs. Competitive S Column

Protocol for HPLC Analysis of Bromelain on TSKgel® BioAssist® S vs. Competitive S Column

RECENTLY VIEWED PRODUCTS



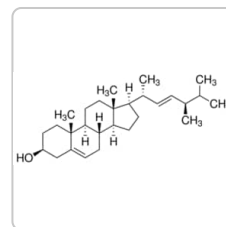
Sigma-Aldrich

B4894

Benzyl 2-acetamido-2-deoxy- α -D-galactopyranoside hydrate

O-glycosylation inhibitor

[View Price and Availability](#)



Sigma-Aldrich

B4936

Brassicasterol

from semisynthetic

[View Price and Availability](#)

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