


Z-VAD(OH)-FMK, Irreversible general caspase inhibitor ab120382

[23 References](#) [5 图像](#)

概述

产品名称	Z-VAD(OH)-FMK, Irreversible general caspase抑制剂
描述	Irreversible general caspase抑制剂
CAS编号	220644-02-0
化学结构	

性能

分子量	453.46
分子式	C ₂₁ H ₂₈ N ₃ O ₇
序列	VAD (Modifications: N-terminal benzyloxycarbonyl; C-terminal FMK)
PubChem识别号	5497170
存放说明	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
溶解度概述	Soluble in DMSO to 20 mM
处理	<p>Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one week. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.</p> <p>Refer to SDS for further information.</p> <p>Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.</p>
SMILES	<chem>FCC(=O)C(CC(=O)O)NC(=O)[C@H](C)NC(=O)[C@@H](NC(=O)OCc1ccccc1)C(C)C</chem>
来源	Synthetic

应用

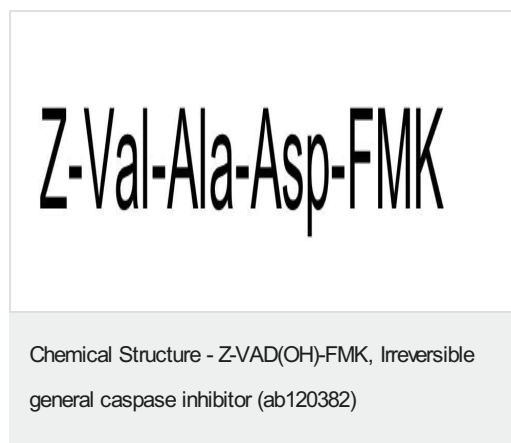
The Abpromise guarantee

Abpromise™ 承诺保证使用 ab120382 于以下的经测试应用

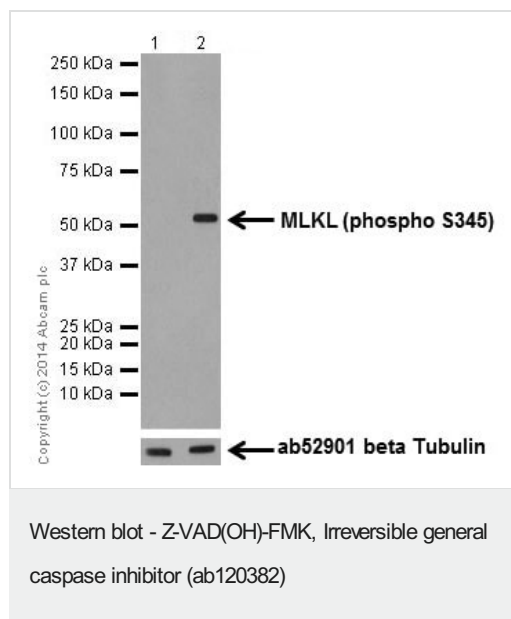
“应用说明”部分下显示的仅为推荐的起始稀释度；实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
Functional Studies		Use at an assay dependent concentration.

图片



2D chemical structure image of ab120382, Z-VAD(OH)-FMK, Irreversible general caspase inhibitor



All lanes : Anti-MLKL (phospho S345) antibody [EPR9515(2)] ([ab196436](#)) at 1/1000 dilution

Lane 1 : Untreated L-929 (Mouse connective tissue fibroblast cells) whole cell lysate

Lane 2 : L-929 whole cell lysate treated with 20 ng/ml TNF alpha ([ab9642](#)), 100 nM Smac mimetic, and 20 μM z-VAD (ab120382) for 8 h and then harvested.

Lysates/proteins at 10 μg per lane.

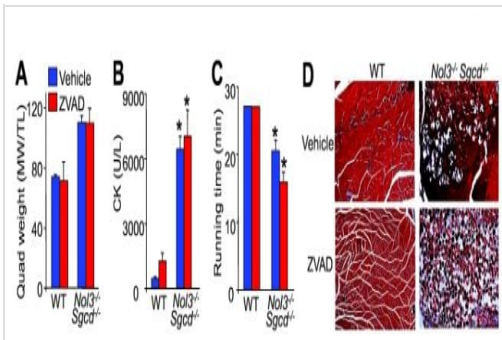
Secondary

All lanes : Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Observed band size: 54 kDa

Exposure time: 15 seconds

Blocking and dilution buffer: 5% NFD/MTBST.



Functional Studies - ZVAD(OH)-FMK, Irreversible general caspase inhibitor (ab120382)

Davis J et al. PLoS One. 2013; 8(12): e82053. doi: 10.1371/journal.pone.0082053 Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>

ZVAD-fmk treatment does not correct muscular dystrophy in Ncl3-/- Sgcd-/- mice.

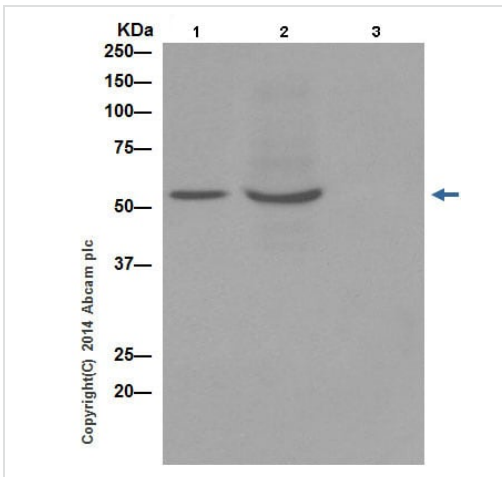
A: Muscle weights normalized to tibial length of quadriceps of mice treated with or without ZVAD-fmk for 4 weeks

B: Creatine Kinase levels

C: Quantification of the time to exhaustion as assessed by involuntary treadmill running measured from vehicle or ZVAD-fmk treated WT and Ncl3-/- Sgcd-/- mice

D: Histologic images taken at 100x of Masson's trichrome stained sections of quadriceps from vehicle or ZVAD-fmk treated WT and Ncl3^{-/-}Sgcd^{-/-} mice

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Immunoprecipitation - ZVAD(OH)-FMK, Irreversible general caspase inhibitor (ab120382)

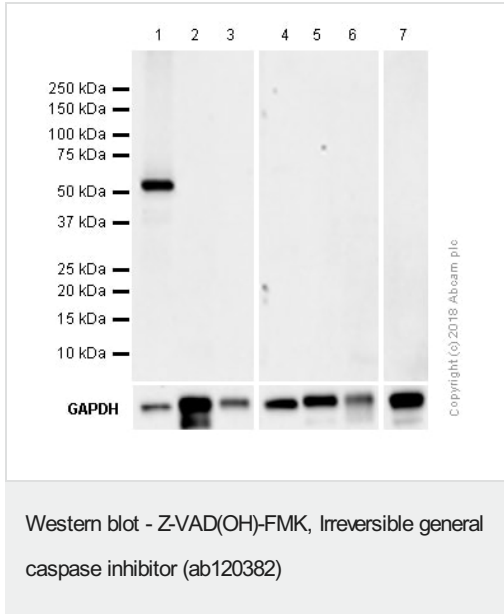
MLKL (phospho S345) was immunoprecipitated from 1mg of L-929 (Mouse connective tissue fibroblast cells) whole cell lysate treated with 20 ng/ml TNF alpha ([ab9642](#)) + 100 nM Smac mimetic + 20 μM z-VAD compound ([ab120382](#)) for 8h using [ab196436](#) at 1/1500 dilution. Western blot was performed from the immunoprecipitate using [ab196436](#) at 1/1000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.

Lane 1: L-929 whole cell lysate treated with 20 ng/ml TNF alpha ([ab9642](#)) + 100 nM Smac mimetic+ 20 μM z-VAD compound ([ab120382](#)) for 8h;10 μg (Input).

Lane 2: [ab196436](#) IP in L-929 whole cell lysate treated with 20 ng/ml TNF alpha ([ab9642](#)) + 100 nM Smac mimetic+ 20 μM z-VAD compound ([ab120382](#)) for 8h.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of [ab196436](#) in L-929 whole cell lysate treated with 20 ng/ml TNF alpha ([ab9642](#)) + 100 nM Smac mimetic+ 20 μM z-VAD compound ([ab120382](#)) for 8h.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.



All lanes : Anti-MLKL (phospho S345) antibody [EPR9515(2)] ([ab196436](#)) at 1/1000 dilution

Lane 1 : L-929 treated with 20 ng/ml TNF alpha ([ab9642](#)), 100 nM Smac mimetic, and 20 μ M z-VAD (ab120382) for 8 h, whole cell lysate

Lane 2 : Mouse brain tissue lysate

Lane 3 : Mouse colon tissue lysate

Lane 4 : Mouse lung tissue lysate

Lane 5 : Mouse retina tissue lysate

Lane 6 : Mouse liver tissue lysate

Lane 7 : Raw264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate

Lysates/proteins at 20 μ g per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Observed band size: 54 kDa

Exposure time: 50 seconds

Blocking and diluting buffer: 5% NFDm/TBST.

MLKL pS345 is a trigger for necroptosis. It is only detectable in infection/cellular damaged (PMID:29229989) or aging tissue (PMID: 28807105) but not in normal tissues.

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