

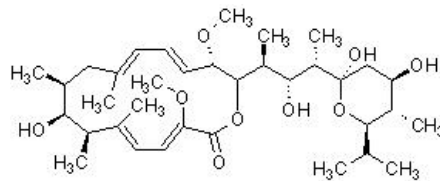
Bafilomycin A1, (V)-ATPase inhibitor ab120497

[61 References](#) [4 Images](#)

Overview

Product name	Bafilomycin A1, (V)-ATPase inhibitor
Description	Highly potent, selective (V)-ATPase inhibitor
Biological description	Highly potent, selective vacuolar (V)-ATPase inhibitor (IC ₅₀ = 500 pM in chromaffin granule membranes). Induces vacuolar deacidification and promotes apoptosis.
CAS Number	88899-55-2

Chemical structure



Properties

Chemical name	(3 <i>Z</i> ,5 <i>E</i> ,7 <i>R</i> ,8 <i>S</i> ,9 <i>S</i> ,11 <i>E</i> ,13 <i>E</i> ,15 <i>S</i> ,16 <i>R</i>)-8-Hydroxy-16-[(1 <i>S</i> ,2 <i>R</i> ,3 <i>S</i>)-2-hydroxy-1-methyl-3-[(2 <i>R</i> ,4 <i>R</i> ,5 <i>S</i> ,6 <i>R</i>)-tetrahydro-2,4-dihydroxy-5-methyl-6-(1-methylethyl)-2 <i>H</i> -pyran-2-yl]butyl]-3,15-dimethoxy-5,7,9,11-tetramethyloxacyclohexadeca-3,5,11,13-tetraen-2-one
Molecular weight	622.84
Molecular formula	C ₃₅ H ₅₈ O ₉
PubChem identifier	6436223
Storage instructions	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in ethanol to 5mM
Handling	<p>This product is supplied in one (or more) pack size which is freeze dried. Therefore the contents may not be readily visible, as they can coat the bottom or walls of the vial. Please see our FAQs and information page for more details on handling.</p> <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 month. 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>Need more advice on solubility, usage and handling? Please visit our frequently asked</p>

[questions \(FAQ\) page](#) for more details.

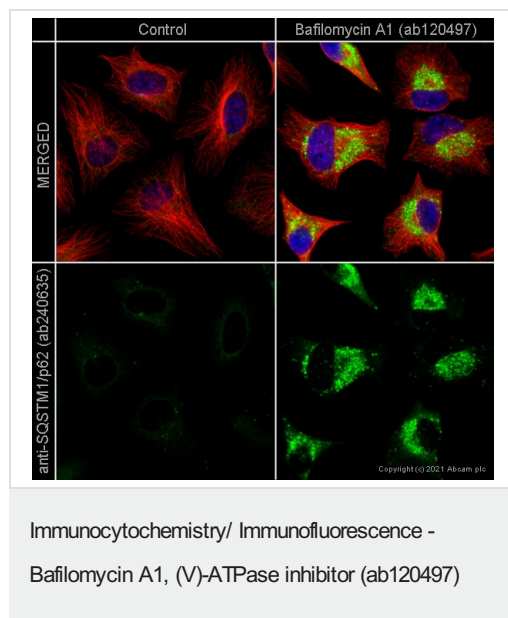
SMILES

O[C@@]1(C[C@@H](O)[C@H](C)[C@H](O1)C(C)C)[C@@H](C)[C@H](O)[C@H](C)C2OC(=O)C(OC)=CC=C(C)[C@@H](C)[C@@H](O)[C@@H](C)CC(C)=CC=C[C@@H]2OC

Source

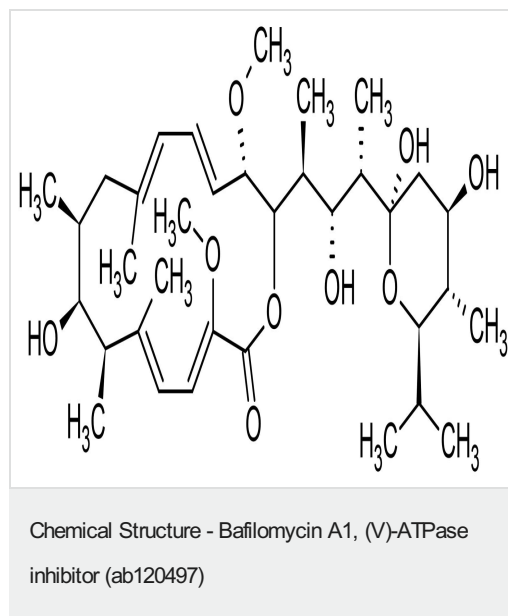
Streptomyces griseus

Images

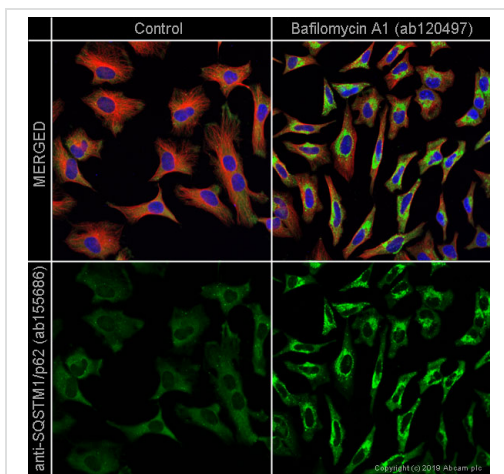


ab240635 staining SQSTM1/p62 (autophagosome) in control HeLa cells (left panel) and SQSTM1/p62 in HeLa cells treated with 100nM bafilomycin A1 (ab120497) for 18hrs (right panel). The cells were fixed with methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab240635** at 2ug/ml and **ab7291** (Tubulin) at 1/1000 dilution overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



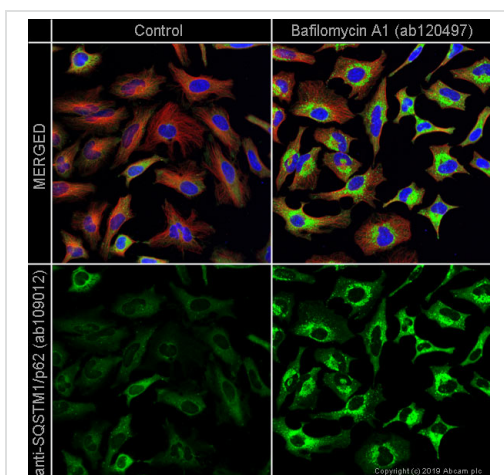
2D chemical structure image of ab120497, Bafilomycin A1, (V)-ATPase inhibitor



Immunocytochemistry/ Immunofluorescence -
Bafilomycin A1, (V)-ATPase inhibitor (ab120497)

ab155686 staining SQSTM1/p62 (autophagosome) in control HeLa cells (left panel) and SQSTM1/p62 in HeLa cells treated with 1uM bafilomycin A1 (ab120497) for 18hrs (right panel). The cells were fixed with methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab155686** at 1/500 dilution and **ab7291** (Tubulin) at 1/1000 dilution overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in pseudo color red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence -
Bafilomycin A1, (V)-ATPase inhibitor (ab120497)

ab109012 staining SQSTM1/p62 (autophagosome) in control HeLa cells (left panel) and SQSTM1/p62 in HeLa cells treated with 1uM bafilomycin A1 (ab120497) for 18hrs (right panel). The cells were fixed with methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab109012** at 5ug/ml and **ab7291** (Tubulin) at 1/1000 dilution overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in pseudo color red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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