

Product datasheet

Ionomycin Ca²⁺ Salt ab120116

4 References 2 Images

Overview

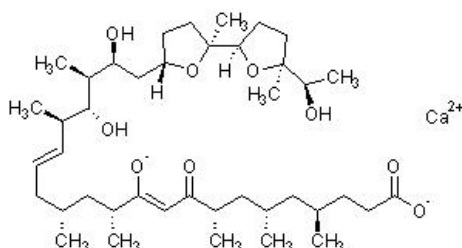
Product name	Ionomycin Ca ²⁺ Salt
Description	Ca ²⁺ ionophore
Biological description	Ca ²⁺ ionophore. Useful when calcium-dose response data are not required. Ion specificity Mn ²⁺ >Ca ²⁺ >Mg ²⁺ >Sr ²⁺ >Ba ²⁺ .
Purity	> 99%

Properties

Chemical name (4*R*,6*S*,8*S*,10*Z*,12*R*,14*R*,16*E*,18*R*,19*R*,20*S*,21*S*)-11,19,21-Trihydroxy-4,6,8,12,14,18,20-heptamethyl-22-[(2*S*,2'*R*,5*S*,5'*S*)-octahydro-5'-[(1*R*)-1-hydroxyethyl]-2,5'-dimethyl[2,2'-bifuran]-5-yl]-9-oxo-10,16-docosadienoic acid calcium salt

Molecular weight 747.08

Chemical structure



Molecular formula C₄₁H₇₀CaO₉

CAS Number 56092-82-1

PubChem identifier 6446270

Storage instructions Store at +4°C. Store under desiccating conditions. The product can be stored for up to 12 months.

Solubility overview Soluble in DMSO to 25 mM and in ethanol to 100 mM

Handling 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.

Need more advice on solubility, usage and handling? Please visit our [frequently asked questions \(FAQ\) page](#) for more details.

SMILES

[Ca+2].[O-]C(=O)CC[C@@H](C)C[C@H](C)C[C@H](C)C(=O)C=C([O-])[C@H](C)C[C@H](C)CC=C[C@@H](C)[C@@H](O)[C@@H](C)[C@@H](O)C[C@@H]1CC[C@](C)(O1)[C@H]2CC[C@](C)(O2)[C@@H](C)O

Source

Streptomyces conglobatus

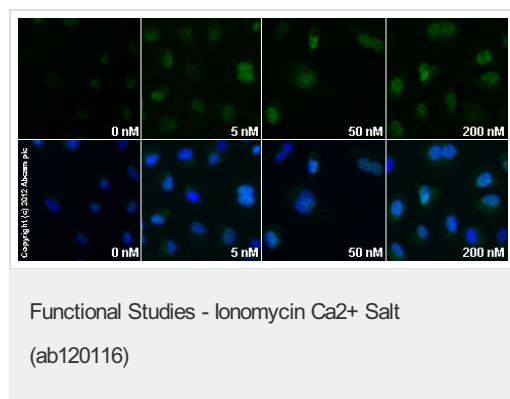
Applications

Our [Abpromise guarantee](#) covers the use of **ab120116** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

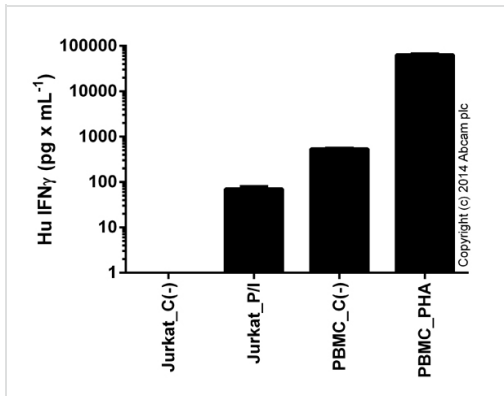
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



[ab58668](#) staining ATF3 in A549 cells treated with ionomycin Ca²⁺ salt (ab120116), by ICC/IF. Increase in ATF3 expression correlates with increased concentration of ionomycin Ca²⁺ salt, as described in literature.

The cells were incubated at 37°C for 2h in media containing different concentrations of ab120116 (ionomycin Ca²⁺ salt) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with [ab58668](#) (10 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-mouse polyclonal antibody ([ab96879](#)) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.



Functional Studies - Ionomycin Ca²⁺ Salt
(ab120116)

Sandwich ELISA - IFN gamma Human ELISA Kit (ab46025)

Jurkat were stimulated for 48 hours with 50 ng x mL⁻¹ of PMA (ab120297) and 1 uM Ionomycin (ab120116) and PBMCs were stimulated for 48 hours with 2 % PHA-M (LifeTechnologies). Cell free supernatants were tested, showing results after background signal was subtracted (duplicates +/- SD).

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE, NOT FOR USE IN HUMANS"

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