Product name: Tunicamycin, Protein glycosylation inhibitor

Description: Antibiotic. Protein glycosylation inhibitor.

Biological description: Nucleoside antibiotic that inhibits protein glycosylation. Inhibits GlcNAc phosphotransferase (GPT) and inhibits the transfer of N-acetylglucosamine-1-phosphate from UDP-N-acetylglucosamine to dolichol phosphate in the first step of glycoprotein synthesis. Inhibits N-linked glycosylation and blocks the formation of N-glycosidic protein-carbohydrate linkages. Active \textit{in vitro} against Gram-positive bacteria, yeasts, fungi and viruses.

Purity: > 98%

General notes: This compound is a mixture of the homologs of tunicamycin: A, B, C and D which vary in the carbon chain length (n=8 to 11)

CAS Number: 11089-65-9

Chemical structure:

![Chemical structure of Tunicamycin](image)

Molecular weight: 844.95

Molecular formula: C$_{39}$H$_{64}$N$_4$O$_{16}$ (for tunicamycin C, n = 10)

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 50 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.
temperature for at least 1 hour.
Toxic, refer to SDS for further information.

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

**Source**

*Streptomyces sp.*

**Applications**

Our Abpromise guarantee covers the use of ab120296 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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**Images**

**Western blot - Tunicamycin, Protein glycosylation inhibitor. (ab120296)**

**All lanes**: Anti-ATF-4 antibody [EPR18111] (ab184909) at 1/1000 dilution

**Lane 1**: Untreated HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate (control)

**Lane 2**: HepG2 (Human liver hepatocellular carcinoma cell line) treated with 5 µM MG-132 (ab141003) and 3 µg/ml tunicamycin (ab120296) for 6 hours whole cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Observed band size**: 50 kDa

**why is the actual band size different from the predicted?**

**Exposure time**: 15 seconds

**Blocking/Dilution buffer**: 5% NFDM/TBST.
The molecular weight observed is consistent with what has been described in the literature (PMID: 22095285).
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- Response to your inquiry within 24 hours
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