[ **Product Information** ]

**Name:** Tomatine  
**Catalog No.:** CFN90930  
**Cas No.:** 17406-45-0  
**Purity:** >=98%  
**M.F:** C$_{50}$H$_{83}$NO$_{21}$  
**M.W:** 1034.2  
**Physical Description:** Powder  
**Synonyms:** (3beta,5alpha,22beta,25S)-Spirosolan-3-yl-O-beta-D-glucopyranosyl-(1-2)-O-(beta-D-xylopyranosyl)-(1-3))-O-(beta-D-glucopyranosyl-(1-4)-beta-D-Galactopyranoside

[ **Intended Use** ]

1. Reference standards;  
2. Pharmacological research;  
3. Food research;  
4. Cosmetic research;  
5. Synthetic precursor compounds;  
6. Intermediates & Fine Chemicals;  
7. Others.

[ **Source** ]

The fruits of *Solanum lycopersicum.*
**[Biological Activity or Inhibitors]**

alpha-Tomatine has fungitoxicity, it is far more toxic at a high pH than at a low pH, this suggests that the unprotonated alkaloid is the active form and that it acts by complexing with fungal sterols.[1]

alpha-Tomatine is toxic to an endoparasite of a major lepidopterous pest of tomatoes, the parasite acquires the alkaloid from its host after the host ingests the alkaloid, this form of interaction creates a potential dilemma to controlling herbivorous pests through chemical antibiosis in plants.[2]

alpha-Tomatine induces programmed cell death mediated by reactive oxygen species in the fungal pathogen Fusarium oxysporum via activating phosphotyrosine kinase and monomeric G-protein signaling pathways.[3]

alpha-Tomatine induces apoptosis and inhibits NF-κB activation on prostate cancer cells, suggests that it may be beneficial for protection against prostate cancer development and progression.[4]

alpha-Tomatine can inhibit the metastatic ability of A549 cells by reducing MMP-2, MMP-9, and u-PA activities through suppressing phosphoinositide 3-kinase/Akt (PI3K/Akt) or ERK1/2 signaling pathway and inhibition NF-kappaB or AP-1 binding activities, suggests that alpha-tomatine may be an anti-metastatic agent against human lung adenocarcinoma.[5]

Tomatine has anti-inflammatory activity.[6]

**[Solvent]**

Pyridine, Methanol, Ethanol, etc.

**[HPLC Method]**[7]

Mobile phase: Tetrahydrofuran-Acetonitrile-0.02 M KH₂PO₄ =50:30:20 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;
The wave length of determination: 205 nm.

[ **Storage** ]

2-8°C, Protected from air and light, refrigerate or freeze.

[ **References** ]


[ **Contact** ]

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