



Thiocolchicoside

(CEP No. R0-CEP 2019-282, US DMF No.32070)



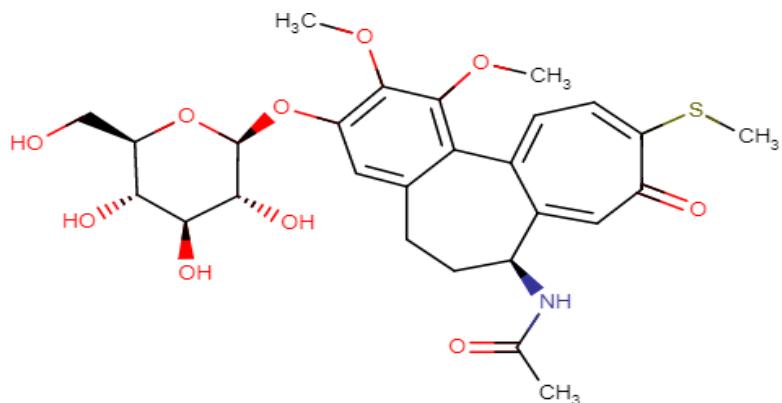
Renowned API for muscle spasm

Gloriosa superba L. is a perennial climber and is used as an ayurvedic medicinal herb to cure diseases in various parts of Africa and Southeast Asia. The plant was under threatened category due to its imprudent harvesting from wild as it is extensively used by medicinal industries for its colchicine content. It also faces a low seed set problem, but due to its industrial demand it is now under cultivation. Various compounds have been isolated from the plant parts mainly tubers and seeds, viz colchicine, colchicoside (its semi-synthetic derivative - thiocolchicoside), superbine, gloriosine, lumicolchicine, β -demethyl-N-deformyl-N-deacetylcolchicine, β -demethylcolchicine, N-formyl deacetylcolchicine.

Thiocolchicoside is a natural occurring glycoside originated from the flower seeds of superba gloriosa with anti-inflammatory and analgesic properties. It is commonly used to relieve painful muscle contractions, muscle stiffness, joint, & nerve diseases, and low backache in adults including adolescents above the age of sixteen years. It works on the centers in spinal cord and brain to relieve muscle stiffness without decreasing strength.

It works through selective binding to the GABA-A receptor. It prevents muscle contractions by activating the GABA inhibitory motor pathway.

This medication acts as a competitive GABA receptor antagonist and inhibits glycine receptors with similar potency as nicotinic acetylcholine receptors. It has powerful convulsing activity and should not be used in individuals at risk for seizures.



Chemical Structure

Chemical Formula- $C_{27}H_{33}NO_{10}S$

Key Features

- Potent, competitive GABA_A antagonist
- CAS Number: 602-41-5
- Soluble in water and in ethanol
- Form / State: Solid

Market Dynamics

Thiocolchicoside is mainly used for muscle relaxation which relieves painful spasms of skeletal muscles. Thus, increasing number of aged population and rise in the use of thiocolchicoside among this age group are anticipated to drive the demand throughout the forecast period. Along with muscle relaxation, it is also used for joint diseases, osteoarthritis, rheumatoid arthritis, and ischiadynia, etc. which is expected to increase the demand for this drug during the forecast period. It is a safe medicine if used as per doctor's prescription and for advised duration.

Chereso- A reliable partner to provide quality product

We are in the business of manufacturing active pharmaceutical ingredients from plant sources having two state-of-the-art manufacturing facilities supported with ISO 9001-2015, ISO 22000:2018, WHO-GMP, NSF-GMP, Kosher, Halal, COPP certification.

CHERESO, an innovative research based manufacturing company has developed a patent filed manufacturing process to eliminate/minimize the said N-formyl impurity.

Supported by:

- Certificate of Suitability (CEP)
- US DMF – 32070

References:

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3. https://www.researchgate.net/publication/47717335_Critical_review_on_medicinally_potent_plant_species_Gloriosa_superba
4. Larsson S and Rønsted N; Reviewing Colchicaceae Alkaloids – Perspectives of Evolution on Medicinal Chemistry : Current Topics in Medicinal Chemistry, (2014), 14, 274-289.
5. Jana S, and Shekhawat GS ; Critical review on medicinally potent plant species: Gloriosa superba: Fitoterapia,(2011), 82(3) :293-301