



Trichosanthin (TCST-2): sc-69672

BACKGROUND

Trichosanthin, also known as TCS, is a type I ribosome-inactivating protein (RIP) that is expressed in the root tubers of the Chinese medicinal herb *Trichosanthes kirilowii*, known more commonly as Tian Hua Fen. Historically, Trichosanthin was used as an abortifacient, disrupting cell growth and preventing fetal development, but recent research reveals several other immunosuppressive activities of the purified plant protein. Under normal cellular conditions, Trichosanthin contains one calcium metal ion per molecule and functions to cleave supercoiled double-stranded DNA, thereby producing linear DNA and nicked circular DNA. Via its endonucleolytic activity, Trichosanthin acts as a potent inhibitor against HIV-1 replication. In addition, Trichosanthin can interact with ER-induced stress signaling pathways and, through this interaction, can induce apoptosis in several different tumor cell lines, suggesting an important role in tumor suppression.

REFERENCES

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

Trichosanthin (TCST-2) is a mouse monoclonal antibody raised against highly purified Trichosanthin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Trichosanthin (TCST-2) is recommended for detection of Trichosanthin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Trichosanthin: 27 kDa.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.