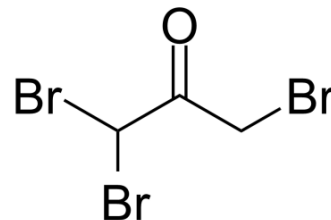


## 1,1,3-Tribromoacetone

Cat. No.:	HY-133624
CAS No.:	3475-39-6
Molecular Formula:	C <sub>3</sub> H <sub>3</sub> Br <sub>3</sub> O
Molecular Weight:	294.77
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	1,1,3-Tribromoacetone is an impurity of Methotrexate (HY-14519) <sup>[1]</sup> . Methotrexate, an antimetabolite and antifolate agent, inhibits the enzyme dihydrofolate reductase, thereby preventing the conversion of folic acid into tetrahydrofolate, and inhibiting DNA synthesis <sup>[1]</sup> .
<b>In Vivo</b>	Methotrexate (Amethopterin) reduces thymus and spleen indices of mice. Methotrexate markedly decreases white blood cells, thymic and splenic lymphocytes at dose $\geq 5$ mg/kg. However, there is a significant difference between the treatment plus control group and the model group ( $p < 0.01$ ). The combination of grape seed proanthocyanidins and Siberian ginseng eleutherosides obviously diminishes the effects of Methotrexate exposure on indices of thymus and spleens in mice <sup>[2]</sup> . Methotrexate (MTX) (2 mg/kg; i.p.; once in a week for 5 weeks) is effective in Freund's complete adjuvant-induced arthritis. The combination of Methotrexate (1 mg/kg; i.p.; once in a week for 5 weeks) and Curcumin (30 mg/kg and 100 mg/kg, thrice a week for 5 weeks; i.p.) shows a significant anti-arthritic action and protection from hematological toxicity <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Balwant Singh, et al. Process for the preparation of high purity methotrexate and derivatives thereof. Patent US4374987A 87A
- [2]. [2]. Swierkot J, et al. Methotrexate in rheumatoid arthritis. *Pharmacol Rep.* 2006 Jul-Aug;58(4):473-92
- [3]. Banji D, et al. Evaluation of the concomitant use of methotrexate and curcumin on Freund's complete adjuvant-induced arthritis and hematological indices in rats. *Indian J Pharmacol.* 2011;43(5):546-550.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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