

PRODUCT INFORMATION



Trypsin Inhibitor (soybean)

Item No. 14502

CAS Registry No.: 9035-81-8
Synonyms: Kunitz Trypsin Inhibitor, MR 20, SBTI
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Trypsin inhibitor (soybean) is supplied as a crystalline solid. A stock solution may be made by dissolving the trypsin inhibitor (soybean) in water. The solubility of trypsin inhibitor (soybean) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of trypsin inhibitor (soybean) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of trypsin inhibitor (soybean) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Trypsin inhibitor (soybean) is an inhibitor of serine proteases first isolated and characterized by Kunitz.¹ It dose-dependently inhibits trypsin from a variety of sources, as well as plasma kallikrein, thrombin, plasmin, and other serine proteases.¹⁻⁴ Trypsin inhibitor (soybean) also partially inhibits chymotrypsin and neutrophil elastase.^{1,5}

References

1. Kunitz, M. Crystalline soybean trypsin inhibitor: II. General properties. *J. Gen. Physiol.* **30(4)**, 291-310 (1947).
2. Harpel, P.C. Human plasma alpha 2-macroglobulin. An inhibitor of plasma kallikrein. *J. Exp. Med.* **132(2)**, 329-352 (1970).
3. Lanchantin, G.F., Friedmann, J.A., and Hart, D.W. Interaction of soybean trypsin inhibitor with thrombin and its effect on prothrombin activation. *J. Biol. Chem.* **244(3)**, 865-875 (1969).
4. Feeney, R.E., Means, G.E., and Bigler, J.C. Inhibition of human trypsin, plasmin, and thrombin by naturally occurring inhibitors of proteolytic enzymes. *J. Biol. Chem.* **244(8)**, 1957-1960 (1969).
5. Ribeiro, J.K., Cunha, D.D., Fook, J.M., et al. New properties of the soybean trypsin inhibitor: Inhibition of human neutrophil elastase and its effect on acute pulmonary injury. *Eur. J. Pharmacol.* **644(1-3)**, 238-244 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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