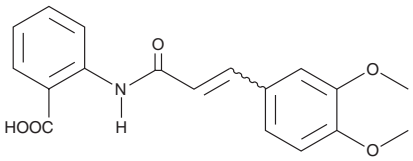
PRODUCT INFORMATION

Tranilast

Item No. 13044

CAS Registry No.: 53902-12-8
Formal Name: 2-[[3-(3,4-dimethoxyphenyl)-1-oxo-2-propen-1-yl]amino]-benzoic acid
Synonyms: 3,4-DAA, N-(3',4'-Dimethyoxycinnamoyl) Anthranilic Acid, N-5', MK 341, SB 252218
MF: $C_{18}H_{17}NO_5$
FW: 327.3
Purity: ≥98%
UV/Vis.: λ_{max}: 339 nm
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

Tranilast is supplied as a crystalline solid. A stock solution may be made by dissolving the tranilast in the solvent of choice, which should be purged with an inert gas. Tranilast is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of tranilast in these solvents is approximately 2, 20, and 35 mg/ml, respectively.

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 tranilast can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of tranilast in PBS (pH 7.2) is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Tranilast is an antiallergic agent.[1] It inhibits prostaglandin E_2 (PGE_2; Item No. 14010) and PGD_2 (Item No. 12010) production induced by A23187 (Item Nos. 11016 | 22030) in isolated rat peritoneal mast cells when used at a concentration of 100 µM, as well as LPS-stimulated production of PGE_2 and thromboxane B_2 (TXB_2; Item No. 19030) in isolated human monocytes (IC_{50}s = ~3 and ~35 µM, respectively).[2,3] Tranilast (500 µM) reduces mast cell degranulation induced by compound 48/80 (Item No. 22173).[1] It inhibits VEGF-stimulated proliferation, migration, and tube formation of bovine retinal endothelial cells (IC_{50}s = 22, 18, and 193 µM, respectively).[4] Tranilast (200 mg/kg) prevents homologous passive cutaneous anaphylaxis (PCA) in guinea pigs.[5] Formulations containing tranilast have been used in the treatment of asthma and keloid and hypertrophic scars.

References

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2. Ikai, K., Ujihara, M., Fujii, K., *et al. Biochem. Pharmacol.* **38(16)**, 2673-2676 (1989).
3. Capper, E.A., Roshak, A.K., Bolognese, B.J., *et al. J. Pharmacol. Exp. Ther.* **295(3)**, 1061-1069 (2000).
4. Koyama, S., Takagi, H., Otani, A., *et al. Br. J. Pharmacol.* **127(2)**, 537-545 (1999).
5. Koda, A., Nagai, H., Watanabe, S., *et al. J. Allergy Clin. Immunol.* **57(5)**, 396-407 (1975).

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