Tranilast
Item No. 13044

CAS Registry No.: 53902-12-8
Formal Name: 2-[(3-(3,4-dimethoxyphenyl)-1-oxo-2-propen-1-yl)aminol]-benzoic acid
Synonyms: N-(3’A-Dimethoxyphenacyl) Anthranic Acid; MK 341; Rizaben; SB 252218; Tranpro
MF: C18H17NO5
FW: 327.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that tranilast be stored as supplied at -20°C. It should be stable for at least two years.

Tranilast is supplied as a crystalline solid. A stock solution may be made by dissolving the tranilast in an organic solvent 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 compound 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.

Tranilast is a compound that exhibits anti-inflammatory and immunomodulatory effects by inhibiting lipid mediator and cytokine release from inflammatory cells and interfering with PDGF- and TGF-β1-induced proliferation and migration of vascular medial smooth muscle cells. Tranilast suppresses production of prostaglandin D2 (IC50 = 0.1 mM),1 prostaglandin E2 (IC50 = ~1-20 µM), thromboxane B2 (IC50 = ~10-50 µM), TGF-β1 (IC50 = ~100-200 µM), and interleukin-8 (IC50 = ~100 µM) in vitro models as well as attenuates of the proinflammatory activity of human monocytes.2 While originally marketed as an antiallergenic drug, the efficacy of tranilast in preventing restenosis after percutaneous coronary intervention has been tested in a large-scale clinical trial.3 Additionally, tranilast inhibits VEGF-induced angiogenic activities (i.e., proliferation, migration and tube formation of vascular endothelial cells) with IC50 values of 22, 18, and 193 µM, which may prove therapeutic for various retinal diseases.4

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/14783

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY NOT FOR ADMINISTRATION TO HUMANS, NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to our email at your institution.

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