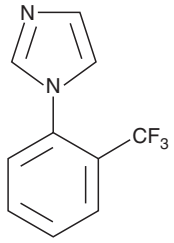
PRODUCT INFORMATION

TRIM

Item No. 81310

CAS Registry No.: 25371-96-4
Formal Name: 1-[2-(trifluoromethyl)phenyl]1H-imidazole
Synonyms: 1-(a,a,a,-trifluoro-o-tolyl)-Imidazole, 1-(2-Trifluoromethylphenyl)imidazole
MF: $C_{10}H_7N_2F_3$
FW: 212.2
Purity: ≥98%
UV/Vis.: λ_{max}: 263 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

TRIM is supplied as a crystalline solid. A stock solution may be made by dissolving the TRIM in the solvent of choice, which should be purged with an inert gas. TRIM is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of TRIM in these solvents is approximately 14 mg/ml.

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 TRIM can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of TRIM in PBS, pH 7.2, is approximately 0.9 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

TRIM exhibits IC_{50} values of 28.2 µM, 27.0 µM, and 1.06 mM for the inhibition of nNOS (mouse), iNOS (rat), and eNOS (bovine), respectively.[1] TRIM inhibits murine nNOS with K_i values of 47.3 µM and 462 µM in the absence and presence of tetrahydrobiopterin, respectively, suggesting TRIM interferes with both arginine and tetrahydrobiopterin binding.[2]

References

1. Handy, R.L.C., Wallace, P., Gaffen, Z.A. et al. The antinociceptive effect of 1-(2-trifluoromethylphenyl), imidazole (TRIM), a potent inhibitor of neuronal nitric oxide synthase *in vitro*, in the mouse. *Br. J. Pharmacol.* **116**, 2349-2350 (1995).
2. Handy, R.L.C., Harb, H.L., Wallace, et al. Inhibition of nitric oxide synthase by 1-(2-trifluoromethylphenyl) imidazole (TRIM) *in vitro*: Antinociceptive and cardiovascular effects. *Br. J. Pharmacol.* **119**, 423-431 (1996).

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