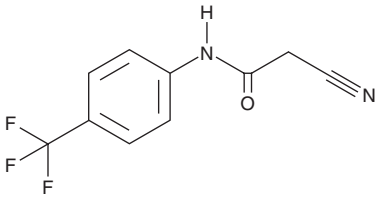
PRODUCT INFORMATION

2-Cyano-N-[4-(trifluoromethyl)phenyl]acetamide

Item No. 45708

CAS Registry No.: 24522-30-3
Formal Name: 2-cyano-N-[4-(trifluoromethyl)phenyl]-acetamide
Synonym: IMPB
MF: $C_{10}H_7F_3N_2O$
FW: 228.2
Purity: ≥95%
Supplied as: A 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

2-Cyano-N-[4-(trifluoromethyl)phenyl]acetamide is supplied as a solid. A stock solution may be made by dissolving the 2-cyano-N-[4-(trifluoromethyl)phenyl]acetamide in the solvent of choice, which should be purged with an inert gas. 2-Cyano-N-[4-(trifluoromethyl)phenyl]acetamide is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

Description

2-Cyano-N-[4-(trifluoromethyl)phenyl]acetamide is a potential impurity found in commercial preparations of the dihydroorotate dehydrogenase inhibitor (DHODH) teriflunomide, also known as A-771726, and a synthetic building block.[1] It is a degradation product formed by acid hydrolysis, oxidative stress, or thermal stress. 2-Cyano-N-[4-(trifluoromethyl)phenyl]acetamide has been used in the synthesis of compounds with a variety of activities, including receptor modulating, antiviral, or antibacterial activities.[2-5]

References

1. Boltia, S.A., Mora, M.M., Ismail, N.S., *et al.* Validated chromatographic methods for determination of teriflunomide and investigation of its intrinsic stability. *BMC Chem.* **18(1),** 93 (2024).
2. Kiselyov, A.S., Semenova, M., and Semenov, V.V. (1,2,3-Triazol-4-yl)benzenamines: Synthesis and activity against VEGF receptors 1 and 2. *Bioorg. Med. Chem. Lett.* **19(5),** 1344-1348 (2009).
3. Metwally, N.H., Elgemeie, G.H., and Fahmy, F.G. Synthesis and biological evaluation of benzothiazolyl-pyridine hybrids as new antiviral agents against H5N1 bird flu and SARS-CoV-2 viruses. *ACS Omega* **8(40),** 36636-36654 (2023).
4. Bheemanapalli, L.N., Akkinepally, R.R., and Pamulaparthy, S.R. Synthesis and antibacterial activity of a new series of 2,3,5,7-substituted-pyrido[2,3-d]pyrimidin-4(3H)-one derivatives. *Chem. Pharm. Bull. (Tokyo)* **56(9),** 1342-1348 (2008).
5. Nikolakopoulos, G., Figler, H., Linden, J., *et al.* 2-Aminothiophene-3-carboxylates and carboxamides as adenosine A1 receptor allosteric enhancers. *Bioorg. Med. Chem.* **14(7),** 2358-2365 (2006).

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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