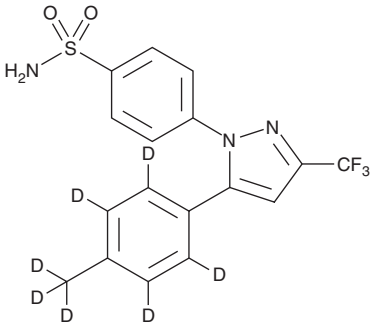
PRODUCT INFORMATION

Celecoxib-d_7

Item No. 18248

CAS Registry No.:	544686-21-7
Formal Name:	4-[5-[4-(methyl-d_3)phenyl-2,3,5,6-d_4]-3-(trifluoromethyl)-1H-pyrazol-1-yl]-benzenesulfonamide
MF:	$C_{17}H_7D_7F_3N_3O_2S$
FW:	388.4
Chemical Purity:	≥98% (Celecoxib)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_7); ≤1% d_0
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

Celecoxib-d_7 is intended for use as an internal standard for the quantification of celecoxib (Item No. 10008672) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Celecoxib-d_7 is supplied as a solid. A stock solution may be made by dissolving the celecoxib-d_7 in the solvent of choice. Celecoxib-d_7 is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of celecoxib-d_7 in these solvents is approximately 33 and 76 mg/ml, respectively.

Description

Celecoxib is a selective inhibitor of COX-2 (IC_{50}s = 22.9 and 0.05 µM for COX-1 and COX-2, respectively).[1,2] It displays chemopreventive activity in multiple tumor types *via* proapoptotic effects that are independent of COX-2 inhibition.[3-5] Formulations containing celecoxib have been used in the treatment of inflammation while circumventing the gastrointestinal toxicity associated with traditional non-sterodial anti-inflammatory drugs, however, the use of celecoxib has been tempered due to its ability to induce adverse cardiovascular events.[6]

References

1. Uddin, J.Md., Rao, P.N.P., and Knaus, E.E. *Bioorg. Med. Chem.* **11(23)**, 5273-5280 (2003).
2. Mardini, I.A. and Fitzgerald, G.A. *Mol. Interv.* **1(1)**, 30-38 (2001).
3. Jendrossek, V., Handrick, R., and Belka, C. *FASEB J.* **17(11)**, 1547-1549 (2003).
4. Leahy, K.M., Ornberg, R.L., Wang, Y., *et al. Cancer Res.* **62(3)**, 625-631 (2002).
5. Zhu, J., Huang, J.-W., Tseng, P.-H., *et al. Cancer Res.* **64(12)**, 4309-4318 (2004).
6. Blobaum, A.L. and Marnett, L.J. *J. Med. Chem.* **50(7)**, 1425-1441 (2007).

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