**Product Specification Sheet**

**Product Name:** MK-0524 (Laropiprant)

**Catalog Number:** C6052

**Technical information:**

- **Chemical Formula:** C_{21}H_{19}ClFNO_{4}S
- **CAS #:** 571170-77-9
- **Molecular Weight:** 435.9
- **Purity:** > 98%
- **Appearance:** White solid
- **Solubility:** Soluble in DMSO up to 50 mM
- **Chemical Name:** [(3R)-4-(4-chloro-benzyl)-7-fluoro-5-(methylsulfonfyl)-1,2,3,4-tetrahydrocyclopenta[b]indol-3-yl]-acetic acid
- **Storage:** Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.
- **Shelf Life:** In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

**Handling:**

- To make 10 mM stock solution, add 0.229mL of DMSO for each mg of MK-0524 (Laropiprant).
  - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

**Biological Activity:**

MK0524, a fused indole-based antagonist of prostaglandin D2 (DP), has a Ki binding affinity of 0.57 nM and a Kd dissociation constant of 0.03 nM. With the exception of the TxA2 receptor (Ki = 2.95 nM), MK0524 has excellent selectivity over a number of other prostanoid receptors (EP family, FP, and IP). In a functional activity assay in platelet-rich plasma and washed platelets, MK0524 had an IC50 of 0.09 nM. [1]

MK-0524 has been shown to block nicotinic acid-induced cutaneous vasodilation and also antagonizes prostaglandin D1 (DP1) in a mouse DP1 functional assay at an IC50 of 1.1 nM. [2]

**Reference:**


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*Chemicals are sold for research use only, not for clinical or diagnostic use.*