**Talniflumate**

**Cat. No.:** HY-103370

**CAS No.:** 66898-62-2

**Molecular Formula:** C_{21}H_{13}F_{3}N_{2}O_{4}

**Molecular Weight:** 414.33

**Target:** Chloride Channel

**Pathway:** Membrane Transporter/Ion Channel

**Storage:**
- Powder: -20°C, 3 years; 4°C, 2 years
- In solvent: -80°C, 6 months; -20°C, 1 month

**BIOLOGICAL ACTIVITY**

**Description**

Talniflumate (BA 7602-06) is the prodrug of Niflumic acid (HY-B0493), exerting its activity in the body through conversion to niflumic acid by esterase\(^1\). Talniflumate is an orally active Ca\(^{2+}\)-activated Cl\(^-\) channel (CaCC) blocker. Talniflumate can be used as an analgesic and anti-inflammatory agent in cystic fibrosis mouse model of distal intestinal obstructive syndrome\(^2\).

**IC\(_{50}\) & Target**

IC\(_{50}\): Ca\(^{2+}\)-activated Cl\(^-\) channel (CaCC)\(^1\)

**In Vivo**

Talniflumate (oral chow; 0.4 mg/g; 21 days) significantly increases CF mouse survival from 26 to 77%. It does not alter crypt goblet cell numbers or change intestinal expression of mCLCA3 but tends to decrease crypt mucoid impaction\(^1\).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**Animal Model:** CF mice with distal intestinal obstructive syndrome (DIOS)\(^1\)

**Dosage:** 0.4 mg/g

**Administration:** Oral chow; 21 days

**Result:** Increased survival in a cystic fibrosis mouse model of distal intestinal obstructive syndrome.

**REFERENCES**

\(^1\) Hyun-Ji Kim, et al. Pharmacokinetics of talniflumate, a prodrug of niflumic acid, following oral administration to man. Archives of Pharmacal Research volume 19, Article number: 297 (1996)
