

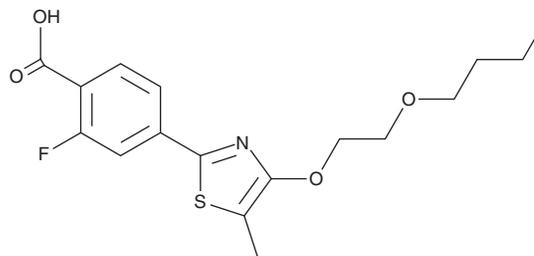
# PRODUCT INFORMATION



**AC-261066**

Item No. 43589

**CAS Registry No.:** 870773-76-5  
**Formal Name:** 4-[4-(2-butoxyethoxy)-5-methyl-2-thiazolyl]-2-fluoro-benzoic acid  
**MF:** C<sub>17</sub>H<sub>20</sub>FNO<sub>4</sub>S  
**FW:** 353.4  
**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

AC-261066 is supplied as a solid. A stock solution may be made by dissolving the AC-261066 in the solvent of choice, which should be purged with an inert gas. AC-261066 is soluble (≥10 mg/ml) in ethanol and DMSO.

## Description

AC-261066 is a retinoic acid receptor  $\beta 2$  (RAR $\beta 2$ ) agonist.<sup>1</sup> It selectively induces RAR $\beta 2$  activity over RAR $\beta 1$  activity in functional assays using mammalian cells (EC<sub>50</sub>s = 10 and >10,000 nM, respectively). AC-261066 is also selective for RAR $\beta$  over RAR $\alpha$  and RAR $\gamma$  (EC<sub>50</sub>s = 12, 70, and 33 nM, respectively, in transactivation assays).<sup>2</sup> Oral administration of AC-261066 (3 mg/100 ml in the drinking water) reduces infarct size, reperfusion arrhythmia duration, norepinephrine overflow, malondialdehyde (MDA) levels, and cardiac mast cell degranulation in a Langendorff isolated perfused mouse heart model of ischemia-reperfusion injury using ApoE<sup>-/-</sup> mice.<sup>3</sup> It reduces steatosis, hepatic 4-hydroxy nonenal (4-HNE) levels, and hepatic stellate cell activation in a mouse model of non-alcoholic fatty liver disease (NAFLD) induced by a high-fat diet.<sup>4</sup>

## References

1. Lund, B.W., Piu, F., Gauthier, N.K., *et al.* Discovery of a potent, orally available, and isoform-selective retinoic acid  $\beta 2$  receptor agonist. *J. Med. Chem.* **48**(24), 7517-7519 (2005).
2. Goncalves, M.B., Clarke, E., Jarvis, C.I., *et al.* Discovery and lead optimisation of a potent, selective and orally bioavailable RAR $\beta$  agonist for the potential treatment of nerve injury. *Bioorg. Med. Chem. Lett.* **29**(8), 995-1000 (2019).
3. Marino, A., Sakamoto, T., Tang, X.H., *et al.* A retinoic acid  $\beta 2$ -receptor agonist exerts cardioprotective effects. *J. Pharmacol. Exp. Ther.* **366**(2), 314-321 (2018).
4. Trasino, S.E., Tang, X.H., Jessurun, J., *et al.* A retinoic acid receptor  $\beta 2$  agonist reduces hepatic stellate cell activation in nonalcoholic fatty liver disease. *J. Mol. Med. (Berl.)* **94**(10), 1143-1151 (2016).

### 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.

### WARRANTY AND LIMITATION OF REMEDY

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