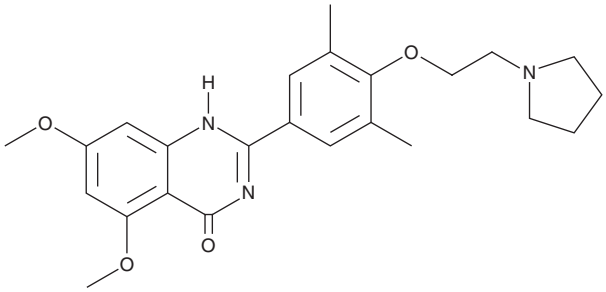
PRODUCT INFORMATION

RVX-297

Item No. 38777

CAS Registry No.:	1044871-04-6
Formal Name:	2-[3,5-dimethyl-4-[2-(1-pyrrolidinyl)ethoxy]phenyl]-5,7-dimethoxy-4(3H)-quinazolinone
MF:	$C_{24}H_{29}N_3O_4$
FW:	423.5
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

RVX-297 is supplied as a solid. A stock solution may be made by dissolving the RVX-297 in the solvent of choice, which should be purged with an inert gas. RVX-297 is soluble in methanol.

Description

RVX-297 is an inhibitor of the bromodomain and extra-terminal domain (BET) family protein bromodomain 2 (BD2).[1] It inhibits BD2 in bromodomain-containing protein 2 (BRD2), BRD3, and BRD4, (IC_{50}s = 0.08, 0.05, and 0.02 µM, respectively) and is selective for BD2 over BD1 (IC_{50}s = 3.76, 2.34, and 1.16 µM for BRD2, BRD3, and BRD4, respectively), as well as CREB-binding protein (CREBBP) and p300 (IC_{50}s = >50 µM for both). RVX-297 (10 and 30 µM) decreases levels of the mRNAs encoding IL-6 and vascular cell adhesion molecule-1 (VCAM-1) in primary synovial fibroblasts isolated from patients with rheumatoid arthritis.[2] It prevents LPS-induced increases in IL-6 and Ifn-γ serum levels in a mouse model of LPS-induced endotoxemia when administered at a dose of 75 mg/kg. RVX-297 (25, 50, and 75 mg/kg twice per day) inhibits collagen-induced increases in ankle and knee diameter, cartilage damage, the ankle tissue levels of mRNA encoding IL-1β, matrix metalloproteinase-3 (Mmp-3), Mmp-13, and Rankl, and ankle joint protein levels of IL-6 and VCAM-1 in a rat model of collagen-induced rheumatoid arthritis. It improves gait and mobility and reverses body weight loss, as well as decreases the number of spinal cord inflammatory foci and apoptotic cells and reduces spinal nerve demyelination in a mouse model of experimental autoimmune encephalomyelitis (EAE) when administered at doses of 75 and 125 mg/kg per day.

References

1. Kharenko, O.A., Gesner, E.M., Patel, R.G., *et al.* RVX-297 - a novel BD2 selective inhibitor of BET bromodomains. *Biochem. Biophys. Res. Commun.* **477(1)**, 62-67 (2016).
2. Jahagirdar, R., Attwell, S., Marusic, S., *et al.* RVX-297, a BET bromodomain inhibitor, has therapeutic effects in preclinical models of acute inflammation and autoimmune disease. *Mol. Pharmacol.* **92(6)**, 694-706 (2017).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM