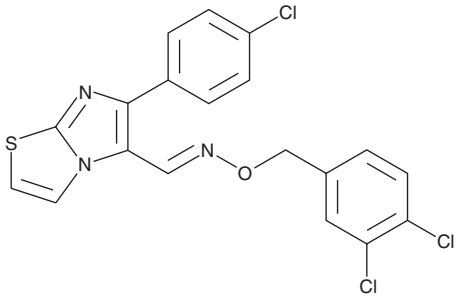
PRODUCT INFORMATION

CITCO

Item No. 16027

CAS Registry No.:	338404-52-7
Formal Name:	O-[(3,4-dichlorophenyl)methyl]oxime 6-(4-chlorophenyl)-imidazo[2,1-b] thiazole-5-carboxaldehyde
MF:	$C_{19}H_{12}Cl_3N_3OS$
FW:	436.7
Purity:	≥95%
UV/Vis.:	λ_{max}: 203, 260, 315 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CITCO is supplied as a crystalline solid. A stock solution may be made by dissolving the CITCO in the solvent of choice, which should be purged with an inert gas. CITCO is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CITCO in these solvents is approximately 10 and 20 mg/ml, respectively.

Description

CITCO is an agonist of human CAR (EC_{50} = 49 nM).[1] It induces nuclear translocation of human CAR in hepatocytes, followed by increased expression of CAR-regulated genes, including several cytochrome P450 isoforms.[1] CITCO less potently activates human pregnane X receptor (EC_{50} = 3 µM) and has no detectable activity on other nuclear receptors at 10 µM.[1] It is selective for human CAR, whereas TCPOBOP (Item No. 14140) is selective for mouse CAR.[2] CITCO does activate alternative splice variants of human CAR that are also found in liver cells.[3] It is commonly used to study the action of human CAR in hepatocytes.[4,5]

References

1. Maglich, J.M., Parks, D.J., Moore, L.B., *et al.* Identification of a novel human constitutive androstane receptor (CAR) agonist and its use in the identification of CAR target genes. *J. Biol. Chem.* **278(19)**, 17277-17283 (2003).
2. Timsit, Y.E. and Negishi, M. CAR and PXR: The xenobiotic-sensing receptors. *Steroids* **72(3)**, 231-246 (2007).
3. Jinno, H., Tanaka-Kagawa, T., Hanioka, N., *et al.* Identification of novel alternative splice variants of human constitutive androstane receptor and characterization of their expression in the liver. *Mol. Pharmacol.* **65(3)**, 496-502 (2004).
4. Kanno, Y., Tanuma, N., Yatsu, T., *et al.* Nigramide J is a novel potent inverse agonist of the human constitutive androstane receptor. *Pharmacol. Res. Perspect.* **2(1)**, 2 (2014).
5. Chen, T., Laurenzana, E.M., Coslo, D.M., *et al.* Proteasomal interaction as a critical activity modulator of the human constitutive androstane receptor. *Biochem. J.* **458(1)**, 95-107 (2014).

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