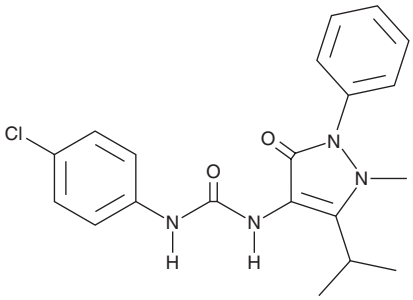
PRODUCT INFORMATION

TC-FPR 43

Item No. 29804

CAS Registry No.:	903895-98-7
Formal Name:	N-(4-chlorophenyl)-N′-[2,3-dihydro-1-methyl-5-(1-methylethyl)-3-oxo-2-phenyl-1H-pyrazol-4-yl]-urea
Synonym:	FPR Agonist 43
MF:	$C_{20}H_{21}ClN_4O_2$
FW:	384.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 247 nm
Supplied as:	A crystalline 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

TC-FPR 43 is supplied as a crystalline solid. A stock solution may be made by dissolving the TC-FPR 43 in the solvent of choice, which should be purged with an inert gas. TC-FPR 43 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of TC-FPR 43 in these solvents is approximately 1 and 5 mg/ml, respectively.

TC-FPR 43 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TC-FPR 43 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. TC-FPR 43 has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

TC-FPR 43 is an agonist of formyl peptide receptor 1 (FPR1) and FPR2, which was previously known as formyl peptide receptor-like 1 (FPRL1).[1,2] TC-FPR 43 induces calcium flux in CHO cells expressing human FPR2, $G_{\alpha 15}$, and aequorin (EC_{50} = 0.044 µM) and in CHO-K1 cells expressing either human FPR1, human FPR2, mouse Fpr1, or mouse Fpr2, $G_{\alpha 16}$, and aequorin in a concentration-dependent manner.[2] TC-FPR 43 inhibits migration of polymorphonuclear (PMN) neutrophils induced by fMLP (Item No. 21495) or IL-8 with IC_{50} values of 0.64 and 0.24 µM, respectively.[1] It also reduces ear swelling induced by prostaglandin E_2 (PGE_2; Item No. 14010) and leukotriene B_4 (LTB_4; Item No. 20110) in mice when administered at a dose of 50 mg/kg.

References

1. Bürli, R.W., Xu, H., Zou, X., *et al.* Potent hFPRL1 (ALXR) agonists as potential anti-inflammatory agents. *Bioorg. Med. Chem. Lett.* **16(14)**, 3713-3718 (2006).
2. Sogawa, Y., Shimizugawa, A., Ohyama, T., *et al.* The pyrazolone originally reported to be a formyl peptide receptor (FPR) 2/ALX-selective agonist is instead an FPR1 and FPR2/ALX dual agonist. *J. Pharmacol. Sci.* **111(3)**, 317-321 (2009).

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