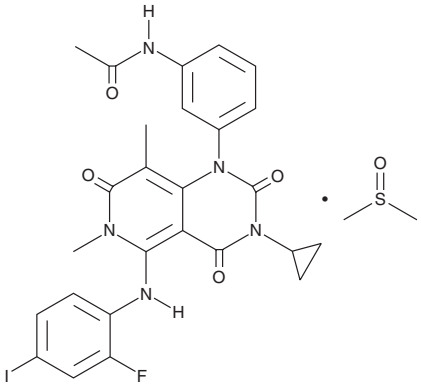
PRODUCT INFORMATION

Trametinib (DMSO solvate)

Item No. 44750

CAS Registry No.:	1187431-43-1
Formal Name:	N-[3-[3-cyclopropyl-5-[(2-fluoro-4-iodophenyl)amino]-3,4,6,7-tetrahydro-6,8-dimethyl-2,4,7-trioxopyrido[4,3-d]pyrimidin-1(2H)-yl]phenyl]-acetamide compd. with 1,1′-sulfinyl*bis*[methane]
Synonyms:	GSK1120212, JTP-74057
MF:	$C_{26}H_{23}FIN_5O_4 \bullet C_2H_6OS$
FW:	693.5
Purity:	≥98%
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

Trametinib (DMSO solvate) is supplied as a solid. A stock solution may be made by dissolving the trametinib (DMSO solvate) in the solvent of choice, which should be purged with an inert gas. Trametinib (DMSO solvate) is slightly soluble (0.1-1 mg/ml) in acetonitrile.

Description

Trametinib is an inhibitor of MEK1 and -2.[1] It inhibits B-RAF- and C-RAF-induced phosphorylation of MEK1 (IC_{50}s = 3.4 and 1.8 nM, respectively) and MEK2 (IC_{50}s = 1.6 and 0.92 nM, respectively). Trametinib inhibits the growth of two human colorectal cancer cell lines expressing mutant B-RAF (IC_{50}s = 0.48 and 0.52 nM) and seven cell lines expressing mutant K-Ras (IC_{50}s = 2.2-174 nM) but does not inhibit the growth of COLO 320DM cells expressing both wild-type B-RAF and wild-type K-Ras (IC_{50} = >10,000 nM). It reduces tumor growth in HT-29 and COLO 205 mouse xenograft models when used at doses of 0.3 and 1 mg/kg per day. Trametinib (0.03 and 0.1 mg/kg per day) also decreases *M. tuberculosis*-induced increases in hind paw volume in a rat model of arthritis.[2] Formulations containing trametinib, in combination with dabrafenib, have been used in the treatment of metastatic mutant $B\text{-}RAF^{V600E}$ melanoma.

References

1. Yamaguchi, T., Kakefuda, R., Tajima, N., *et al.* Antitumor activities of JTP-74057 (GSK1120212), a novel MEK1/2 inhibitor, on colorectal cancer cell lines *in vitro* and *in vivo*. *Int. J. Oncol.* **39(1)**, 23-31 (2011).
2. Yamaguchi, T., Kakefuda, R., Tanimoto, A., *et al.* Suppressive effect of an orally active MEK1/2 inhibitor in two different animal models for rheumatoid arthritis: A comparison with leflunomide. *Inflamm. Res.* **61(5)**, 445-454 (2012).

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