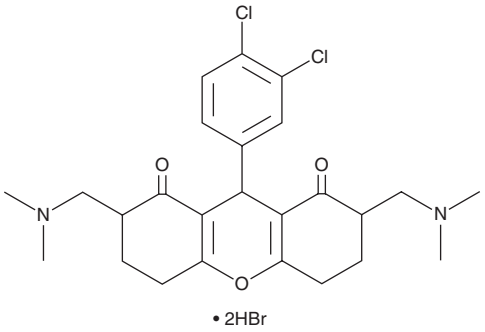
PRODUCT INFORMATION

SD-1029

Item No. 21029

CAS Registry No.:	118372-34-2
Formal Name:	9-(3,4-dichlorophenyl)-2,7-*bis*[(dimethylamino)methyl]-3,4,5,6,7,9-hexahydro-1H-xanthene-1,8(2H)-dione, dihydrobromide
Synonyms:	JAK2 Inhibitor III, Janus-Associated Kinase 2 Inhibitor III
MF:	$C_{25}H_{30}Cl_2N_2O_3$ • 2HBr
FW:	639.3
Purity:	≥80% (mixture of isomers)
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

SD-1029 is supplied as a solid. A stock solution may be made by dissolving the SD-1029 in the solvent of choice, which should be purged with an inert gas. SD-1029 is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

Description

SD-1029 is a Janus kinase 2 (JAK2) inhibitor.[1,2] It inhibits autophosphorylation of recombinant JAK2 when used at concentrations of 30 and 100 µM and decreases levels of phosphorylated JAK2, but not JAK1 or Src, in MDA-MB-468 and paclitaxel-resistant $OVCAR8_{TR}$ cells when used at a concentration of 10 µM.[1] SD-1029 (10 µM) decreases levels of phosphorylated STAT3 in MDA-MB-468, MDA-BM-435, $OVCAR8_{TR}$, and $SKOV3_{TR}$ cells and inhibits IL-6-induced nuclear translocation of STAT3 in BHK-21 and U2OS cells.[1] It decreases the viability of and increases levels of cleaved caspase-3 in SNU-387, SNU-398, HepG2, and Huh7 hepatocellular carcinoma cells when used at a concentration of 10 µM.[3] SD-1029 (100 and 1,000 nM) inhibits hepatitis A virus replication in GL37 cells.[2]

References

1. Duan, Z., Bradner, J.E., Greenberg, E., *et al.* SD-1029 inhibits signal transducer and activator of transcription 3 nuclear translocation. *Clin. Cancer Res.* **12(22)**, 6844-6852 (2006).
2. Jiang, X., Kanda, T., Wu, S., *et al.* Suppression of La antigen exerts potential antiviral effects against Hepatitis A virus. *PLoS One* **9(7)**, e101993 (2014).
3. Liu, Y., Liu, A., Xu, Z., *et al.* XZH-5 inhibits STAT3 phosphorylation and causes apoptosis in human hepatocellular carcinoma cells. *Apoptosis* **16(5)**, 502-510 (2011).

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