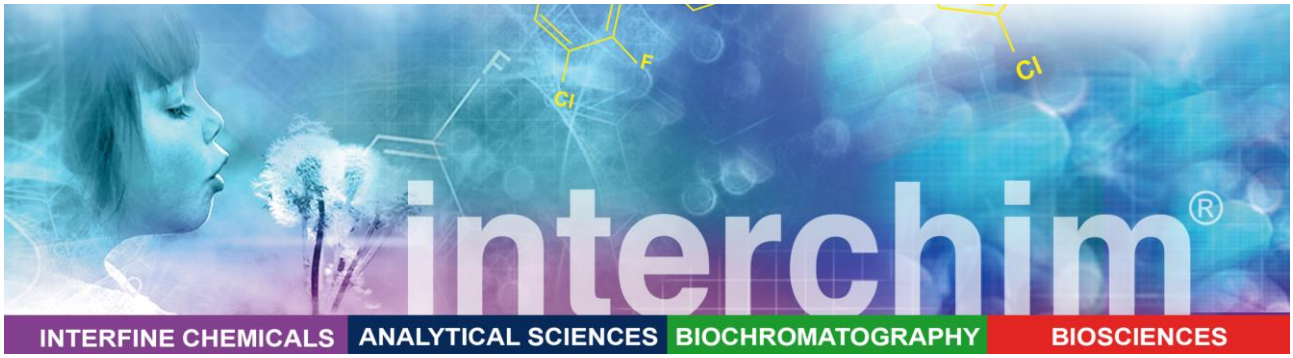
FT-PN910R

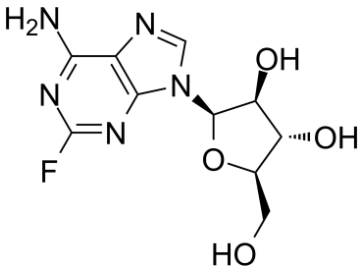


Fludarabine

Product Description

Catalog # (>99%): PN910R, 5mg PN910S, 10mg PN910T, 50mg B2V130, 1ml 10mM in DMSO.

Catalog #: (98%/HPLC): PN910M, 50mg PN910N, 100mg PN910O, 250mg PN910P ; 500mg PN91Q, 1g



Name: **Fludarabine**
Syn: F-ara-A; NSC 118218
CAS : 21679-14-1

MW : 285.23

Formula : $C_{10}H_{13}FN_5O_4$

Properties : Soluble : in DMSO : ≥ 160 mg/mL (560.95 mM)
Purity: >99%

Storage: Powder: -20°C (long term; possible at +4°C (2 years) (M)
In solvent: -80°C (6 months) -20°C (1 month)

For Research Use Only

Introduction

Fludarabine (NSC 118218) is a DNA synthesis inhibitor, which also inhibits phosphorylation of STAT1. Fludarabine, a pro-drug, is converted metabolically by dephosphorylation to the antimetabolite, F-ara-A.

In Vitro

Solubility : DMSO : >160 mg/mL (560.95 mM)
Preparation : 1mM = 1mg in 3.5059 mL

Fludarabine (5 μM; 48 hours) induces a decrease in p27kip1 expression, by a WBlot analysis with B-CLL cells[4] . The decrease in p27kip1 expression was significantly correlated to the extent of in vitro apoptosis.

In Vivo

Fludarabine (0.8 mg/kg; i.p.; two cycles for 5 days every 2 weeks) in combination with Cyclophosphamide (400 mg/kg; i.p.; 2 weeks) decreases incidence of GVHD[5].

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References

[1]. Liang YB, et al. Downregulated SOCS1 expression activates the JAK1/STAT1 pathway and promotes polarization of macrophages into M1 type. Mol Med Rep. 2017 Nov;16(5):6405-6411.

[2]. Sanhes L, et al. Fludarabine-induced apoptosis of B chronic lymphocytic leukemia cells includes early cleavage of p27kip1 by caspases. Leukemia. 2003 Jun;17(6):1104-11.

[3]. Frank DA,et al. Fludarabine-induced immunosuppression is associated with inhibition of STAT1 signaling. Nat Med. 1999 Apr;5(4):444-7.

[4]. Tournilhac O, et al. Impact of frontline fludarabine and cyclophosphamide combined treatment on peripheral blood stem cell mobilization in B-cell chronic lymphocytic leukemia. Blood. 2004 Jan 1;103(1):363-5. Epub 2003 Sep 11.

[5]. Weiss L, et al. Fludarabine in combination with cyclophosphamide decreases incidence of GVHD and maintainseffective graft-versus-leukemia effect after allogeneic stem cell transplantation in murinelymphocytic leukemia. Bone Marrow Transplant. 2003 Jan;31(1):11-5.

More:
- J Exp.Clin Cancer Res. 2019 Aug 22;38(1):370.
- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.
- Front Endocrinol. 2019 Jul.
- J Infect. 2019 Jun 18. pii: S0163-4453(19)30187-2.
- Int J Mol Sci. 2019 Feb 3;20(3). pii: E663.
- Patent. US20160222465A1.

Related products

Other Stat1 Inhibitors & Activators

Inquire Caerulomycin A (Cerulomycin; Caerulomycin) Fungal Infection Inflammation/Immunology

Caerulomycin A (Cerulomycin; Caerulomycin), an antifungal compound, induces generation of T cells, enhances TGF-β-Smad3 protein signaling via suppressing interferon-γ-induced STAT1 signaling. Antifungal and antibiotic activity, and used in autoimmune diseases.

Inquire Abrocitinib (PF-04965842) JAK Inflammation/Immunology

Abrocitinib (PF-04965842) is a potent, orally active and selective JAK1 inhibitor, with IC50s of 29 and 803 nM for JAK1 and JAK2, respectively. Abrocitinib (PF-04965842) exhibits less active effect on TYK2 (IC50, 1.253 μM), and inhibits phosphorylation of STAT1, STAT3 and STAT5 after stimulation. Effective in autoimmune disease.

Inquire SEL120-34A monohydrochloride CDK Cancer

SEL120-34A monohydrochloride is an ATP-competitive and selective CDK8 inhibitor, inhibits kinase activities of CDK8/CycC and CDK19/CycC complexes with IC50s of 4.4 nM and 10.4 nM, respectively, with a Kd of 3 nM for CDK8. SEL120-34A monohydrochloride weakly inhibits CDK9 (calculated IC50=1070 nM), but shows no obvious activity against CDK1, 2, 4, 6, 5, 7. SEL120-34A monohydrochloride inhibits phosphorylation of STAT1 S727 and STAT5 S726. Has anti-tumor activity.

Other Inhibitors & Activators of STAT Isoforms : STAT3, STAT5, STAT6 Inquire

STAT3 Specific Inhibitors & Activators			
Product Name	STAT3	STAT5	STAT3 Selectivity
Stattic	•		Selective Inhibitor
NSC 74859	•		Selective Inhibitor
C188-9	•		Selective Inhibitor
WP1066	•		Selective Inhibitor
Artesunate	•		Selective Inhibitor
BP-1-102	•		Selective Inhibitor
Niclosamide	•		Selective Inhibitor
Scutellarin	•		Selective Inhibitor
Colivelin TFA	•		Selective Activator
Cucurbitacin I	•		Selective Inhibitor
Nifuroxazide	•		Selective Inhibitor
Saikosaponin D	•		Selective Inhibitor
Alantolactone	•		Selective Inhibitor
HO-3867	•		Selective Inhibitor
HJC0152 hydrochloride	•		Selective Inhibitor
Diosgenin	•		Selective Inhibitor
inS3-54A18	•		Selective Inhibitor
Dihydroisotanshinone I	•		Selective Inhibitor
Morusin	•		Selective Inhibitor
SH5-07	•		Selective Inhibitor
Mogrol	•		Selective Inhibitor
Balsalazide	•		Selective Inhibitor
Golotimod hydrochloride	•		Selective Inhibitor
Corylifol A	•		Selective Inhibitor
SI-109	•		Selective Inhibitor
SD-36	•		Selective Inhibitor

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Isocryptotanshinone	•		Selective Inhibitor
Colivelin	•		Selective Activator
Golotimod (TFA)	•		Selective Inhibitor
Golotimod	•		Selective Inhibitor
Balsalazide sodium hydrate	•		Selective Inhibitor
ENMD-119	•		Selective Inhibitor
Niclosamide monohydrate	•		Selective Inhibitor
Garcinone D	•		Pan Activator
SH-4-54	•	•	Pan Inhibitor
Pimozide	•	•	Pan Inhibitor
Protosappanin A	•		Pan
Arnicolide D	•		Pan Inhibitor
Garcinone C	•		Pan Inhibitor
Eupalinolide K	•		Pan Inhibitor
TPCA-1	•		default Inhibitor
STAT3-IN-3	•		default Inhibitor
STAT5 Specific Inhibitors & Activators			
Product Name	STAT5	STAT3	STAT5 Selectivity
AS2863619	•		Selective Activator
STAT5-IN-1	•		Selective Inhibitor
AS2863619 free base	•		Selective Activator
SH-4-54	•	•	Pan Inhibitor
Pimozide	•	•	Pan Inhibitor
Cenisertib	•		Pan Inhibitor
STAT6 Specific Inhibitors			
Product Name	STAT6		STAT6 Selectivity
AS1517499	•		Selective Inhibitor
Picroside I	•		Selective Inhibitor

Ordering information

Catalog size quantities and prices may be found at http://www.interchim.com.
Please inquire for higher quantities (availability, shipment conditions).
Please contact InterBioTech – Interchim for any other information
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