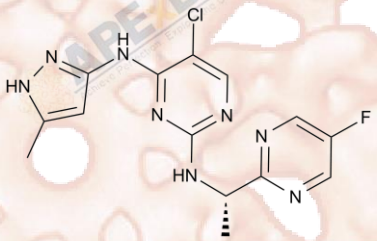
Product Data Sheet

AZD1480

Cat. No.:	A4137
CAS No.:	935666-88-9
Formula:	C14H14ClFN8
M.Wt:	348.77
Synonyms:	AZD 1480
Target:	Chromatin/Epigenetics
Pathway:	JAK
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

insoluble in H2O; ⩾93.8 mg/mL in DMSO; ⩾4.57 mg/mL in EtOH with gentle warming and ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.8672 mL	14.3361 mL	28.6722 mL
5 mM	0.5734 mL	2.8672 mL	5.7344 mL
10 mM	0.2867 mL	1.4336 mL	2.8672 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	JAK2 inhibitor,ATP-competitive and novel
IC_{50} & Target	0.26 nM (JAK2)

In Vitro

Cell Viability Assay

Cell Line:	SKOV3 cells
Preparation method：	The solubility of this compound in DMSO is >93.8mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.
Reacting conditions:	10 μM, 24 hours

	Applications:	In the AZD1480 combined with cisplatin treatment groups, cisplatin could inhibit the proliferation of SKOV3 cells with dose dependent (P0.05) butwas statistically significant difference 5 μmol/L and 10 μmol/L AZD148 groups compared with the control group (P<0.05). The Coefficient ofdruginteraction (CDI) values were (0.902, 0.914, 0.95, 0.893, 0.848, 0.974, 0.923,0.767, 0.372) <1, which confirmed that these two drugs were synergistic. CDI value was 0.372 when the concentration was80μg/ml cisplatin + 10 μmol/L AZD1480,which showed that their synergistic effects were very significant.
In Vivo	**Animal experiment**	
	Animal models:	SCID/Beige mice injected with TC32 or Rh18 cells
	Dosage form:	Oral administration, 30 mg/kg, twice a day for 21 days
	Applications:	The tumor growth in AZD1480-treated group was significantly depressed compared to control in each cell line. Tumors from mice treated with AZD1480 had decreased levels of tyrosine phosphorylated STAT3 as well as of STAT3 downstream targets (CyclinD1,-3, Bcl-2 and Survivin) compared to the levels in tumors from mice receiving vehicle. This shows that AZD1480 treatment induces the inhibition of STAT3 activity and its target gene expression in vivo.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Xin Y L Y, Yang Y, Han P. AZD1480 can inhibit the biological behavior of ovarian cancer SKOV3 cells in vitro. Asian Pacific Journal of Cancer Prevention, 2013, 14(8): 4823-4827.

[2] Yan S, Li Z, Thiele C J. Inhibition of STAT3 with orally active JAK inhibitor, AZD1480, decreases tumor growth in Neuroblastoma and Pediatric Sarcomas In vitro and In vivo. Oncotarget, 2013, 4(3): 433.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable

under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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