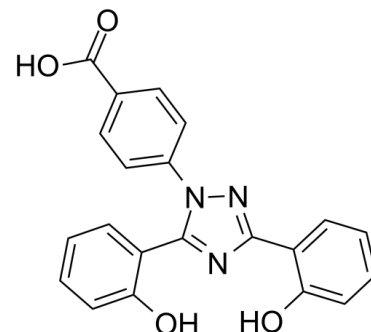


## Data Sheet

<b>Product Name:</b>	Deferasirox
<b>Cat. No.:</b>	CS-0901
<b>CAS No.:</b>	201530-41-8
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>15</sub> N <sub>3</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	373.36
<b>Target:</b>	Bacterial; Ferroptosis
<b>Pathway:</b>	Anti-infection; Apoptosis
<b>Solubility:</b>	DMSO : ≥ 100 mg/mL (267.84 mM)



### BIOLOGICAL ACTIVITY:

Deferasirox (ICL 670) is an orally available iron chelator used for the management of transfusional iron overload. **In Vitro:** In LX-2 cells treated with 50 μM deferiasirox for 12 h, α1(I)procollagen expression is decreased by 25%, with maximal reductions (10-fold) seen following 24-120 h of treatment. Similarly, α-smooth muscle actin (αSMA) expression is significantly lower<sup>[1]</sup>. Deferiasirox had anti-proliferative effects on HL-60 or KG-1 myeloid leukemia cell lines at a concentration as low as 5 μM. The cytotoxicity is both dose and time dependent<sup>[2]</sup>. The viability of both EL4 cells and L1210 cells incubated with deferiasirox decrease in a concentration-dependent manner<sup>[3]</sup>. **In Vivo:** The tumor is significantly smaller in the SIO mice treated with deferiasirox compared with control. Mice treated with DFX showed longer survival than the other groups. Deferiasirox has a survival benefit for SIO leukemia murine model in terms of iron chelation and antileukemic therapy<sup>[3]</sup>.

### PROTOCOL (Extracted from published papers and Only for reference)

**Cell Assay:** <sup>[2]</sup>Deferiasirox is dissolved in DMSO. HL-60 or KG-1 cells are treated with 0, 5, 10, 50 μM of deferiasirox for 24 or 48 h, and proliferation is determined by an MTT assay<sup>[2]</sup>. **Animal Administration:** <sup>[3]</sup>Mice: Murine leukemia cells are injected subcutaneously into the right flank of mice. Deferiasirox is dissolved in distilled water and orally administered at 20 mg/kg until the cumulative dose reaches 300 mg/kg. The mice are observed and weighed daily<sup>[3]</sup>.

### References:

- [1]. Sobbe A, et al. Inconsistent hepatic antifibrotic effects with the iron chelator deferiasirox. J Gastroenterol Hepatol. 2015 Mar;30(3):638-45.
- [2]. Kim JL, et al. The oral iron chelator deferiasirox induces apoptosis in myeloid leukemia cells by targeting caspase. Acta Haematol. 2011;126(4):241-5.
- [3]. Lee DH, et al. Deferiasirox shows in vitro and in vivo antileukemic effects on murine leukemic cell lines regardless of iron status. Exp Hematol. 2013 Jun;41(6):539-46.

### CAIndexNames:

Benzoic acid, 4-[3,5-bis(2-hydroxyphenyl)-1H-1,2,4-triazol-1-yl]-

### SMILES:

O=C(O)C1=CC=C(N2N=C(C3=CC=CC=C3O)N=C2C4=CC=CC=C4O)C=C1

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: [sales@ChemScene.com](mailto:sales@ChemScene.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA