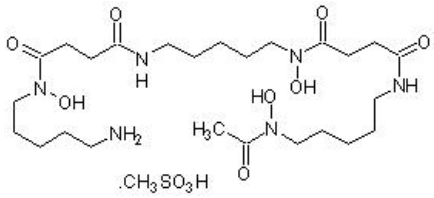
abcam

Product datasheet

Deferoxamine mesylate, Iron chelator ab120727

10 References 4 Images

Overview

Product name	Deferoxamine mesylate, Iron chelator
Description	Iron chelator
Biological description	Iron chelator. Blood-brain barrier permeable. Displays a number of biological actions such as immunomodulation, inhibition of inflammation and atherosclerosis, and reduction of neuronal death.
CAS Number	138-14-7
Chemical structure	

Properties

Chemical name	N^4-[5-[[4-5-(Acetylhydroxyamino)pentyl]-1,4-dioxobutyl]hydroxyaminopentyl-N^1-(5-aminopentyl)-N^1-hydroxybutanediamide methanesulfonate
Molecular weight	656.79
Molecular formula	$C_{25}H_{48}N_6O_8.CH_3SO_3H$
PubChem identifier	62881
Storage instructions	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in water to 100 mM
Handling	Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour. Refer to SDS for further information Need more advice on solubility, usage and handling? Please visit our **frequently asked questions (FAQ) page** for more details.

SMILES	CC(=O)N(CCCCCNC(=O)CCC(=O)N(CCCCCNC(=O)CCC(=O)N(CCCCCN)O)O)O.CS(=O)(=O)O
Source	Synthetic

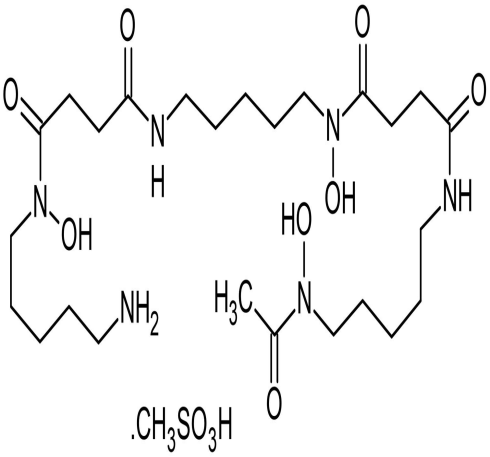
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab120727 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

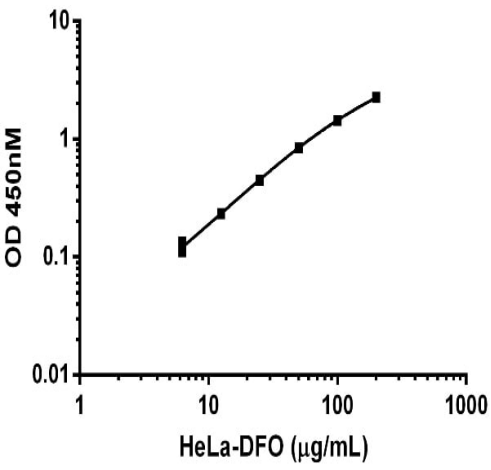
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images



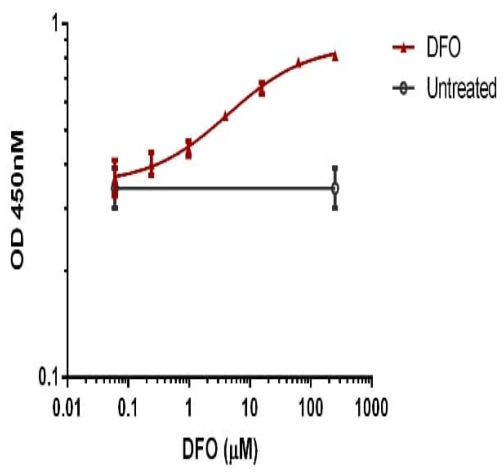
Chemical Structure - Deferoxamine mesylate, Iron chelator (ab120727)

2D chemical structure image of ab120727, Deferoxamine mesylate, Iron chelator



Functional Studies - Deferoxamine mesylate, Iron chelator (ab120727)

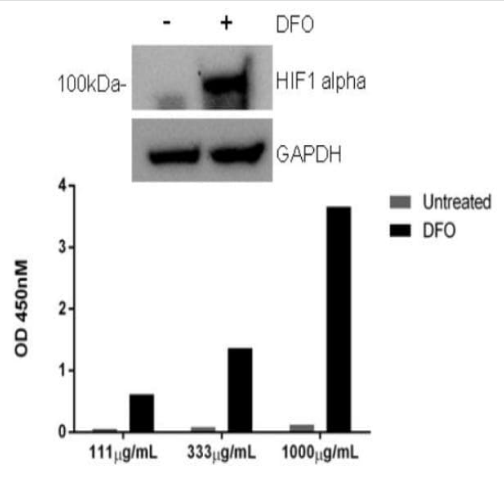
Titration of HeLa-DFO extract within the working range of the assay. Background subtracted data from duplicate measurements are plotted. To induce HIF1 alpha protein levels, HeLa cells were treated with 500 µM DFO (ab120727) for 24 hours.



Deferoxamine mesylate, Iron chelator (ab120727)

Dose-dependent induction of HIF1 alpha in HeLa cells by DFO (ab120727). HeLa cells were cultured in 96-well tissue culture plates and were either untreated or exposed to varying dose of DFO for 24 hours. Raw data with standard deviation is plotted from triplicate measurements.

Dose-dependent induction of HIF1 alpha in HeLa cells by DFO (ab120727). HeLa cells were cultured in 96-well tissue culture plates and were either untreated or exposed to varying dose of DFO for 24 hours. Raw data with standard deviation is plotted from triplicate measurements.



Deferoxamine mesylate, Iron chelator (ab120727)

Comparison of HIF1 alpha expression in HeLa cell extracts (with and without DFO treatment) by SimpleStep ELISA (barchart) and western blot (top). Background subtracted OD450 nm data from three loading concentrations are shown. The HIF1 alpha detector antibody was used to blot the same lysates as analyzed by SimpleStep ELISA (40 µg loaded/lane). The GAPDH blot is included to show the relative loads of each lysate. In the HeLa cell line, DFO treatment is required to detect HIF1 alpha protein by both SimpleStep ELISA and western blot.

Comparison of HIF1 alpha expression in HeLa cell extracts (with and without DFO treatment) by SimpleStep ELISA (barchart) and western blot (top). Background subtracted OD450 nm data from three loading concentrations are shown. The HIF1 alpha detector antibody was used to blot the same lysates as analyzed by SimpleStep ELISA (40 µg loaded/lane). The GAPDH blot is included to show the relative loads of each lysate. In the HeLa cell line, DFO treatment is required to detect HIF1 alpha protein by both SimpleStep ELISA and western blot.

- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors
- Abcam biochemicals are novel compounds and we have not tested their biological activity in house. Please use the literature to identify how to use these products effectively. If you require further assistance please contact the scientific support team