bio-techne
TOCRIS

Print Date: Aug 9th 2024

Certificate of Analysis

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Product Name: **HBC 530** **Catalog No.: 7277** **Batch No.: 1**

CAS Number: 156840-13-0

IUPAC Name: 4-Cyano-α-[[4-[(2-hydroxyethyl)methylamino]phenyl]methylene]benzeneacetonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{19}H_{17}N_3O$

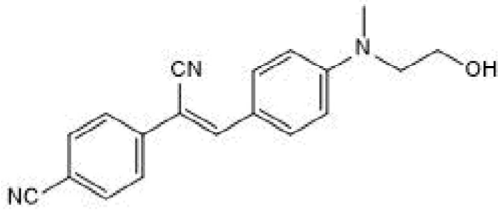
Batch Molecular Weight: 303.37

Physical Appearance: Orange solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	75.23	5.65	13.85
Found	75.06	5.65	13.9

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Description:

HBC 530 is a mimic of green fluorescent protein (GFP) fluorophore for imaging RNA in live cells. Fluoresces when bound to Pepper aptamer; displays high affinity binding (K_d = 3.5 nM). Suitable for confocal and two-photon microscopy. Confocal excitation maximum = 488 nm, emission maximum = 495 - 595 nm. Two-photon excitation maximum = 976 nm, emission maximum = 475 - 575 nm. To make a 1000x stock solution, add 200 µL DMSO (Cat. No. 3176).

Physical and Chemical Properties:

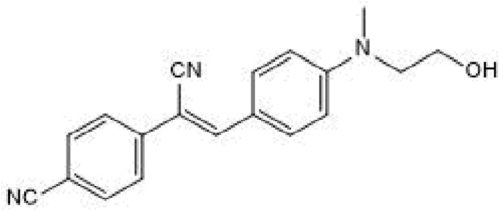
Batch Molecular Formula: $C_{19}H_{17}N_3O$

Batch Molecular Weight: 303.37

Physical Appearance: Orange solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Chen *et al* (2019) Visualizing RNA dynamics in live cells with bright and stable fluorescent RNAs. Nat.Biotechnol. ***37*** 1287. PMID: 31548726.