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DATASHEET

Hoechst 33258

Product overview

Name	Hoechst 33258
Cat No	HB0786
Alternative names	bisBenzimide; HO 33258; Hoechst-33258
Biological description	**Overview**

Blue fluorescent DNA stain that is commonly used in immunofluorescent work. It is frequently used as a nuclear stain to stain nuclei. Excited by UV light.

It is less cell permeable but slightly more water soluble than the similar DNA stain Hoechst 33342 . Unlike Hoechst 33342, Hoechst 33258 is not an apoptotic inducer.

The stain is used as a substitute to DAPI and can be used on both live and fixed cells.

As with other Hoechst stains, Hoechst 33258 binds to the AT-rich regions of the minor grove in DNA.

Uses and applications

Hoechst 33258 has similar applications of use to Hoechst 33342 and is suitable for a variety of applications as there is little fluorescent overlap with other used fluorophores/fluorescent proteins that emit in the green/red range.

The stain is frequently used as a nuclear counterstain, for cell cycle analysis and to distinguish apoptotic cells.

As this stain does not induce apoptosis, it may be preferential to Hoecsht 33342 for identification and isolation of the stem cell side population.

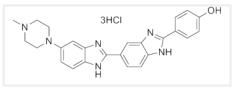
Biological action	Dyes & stains
Purity	>95%
Description	Blue fluorescent nuclear DNA stain. Cell permeable.

Images

Solubility & Handling

Storage instructions	+4°C (desiccate)
Solubility overview	Soluble in water (100 mM), and in DMSO (20 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	Bisbenzimidazole trihydrochloride
Molecular Weight	533.88
Chemical structure	
Molecular Formula	$C_{25}H_{24}N_6O$ 3HCl
CAS Number	23491-45-4
PubChem identifier	31953
SMILES	CN1CCN(CC1)C2=CC3=C(C=C2)N=C(N3)C4=CC5=C(C=C4)NC(=C6C=CC(=O)C=C6)N5.Cl.Cl.Cl
InChiKey	SMNPLAKEGAEPJD-UHFFFAOYSA-N
MDL number	MFCD00012679

References

Recognition of RNA duplex by a neomycin-Hoechst 33258 conjugate.

Willis B *et al* (2014) Bioorg Med Chem 22(7)
PubMedID 24630691

Minor-groove binding drugs: where is the second Hoechst 33258 molecule?

Fornander LH *et al* (2013) J Phys Chem B 117(19)
PubMedID 23607615

Interaction of DNA minor groove binder Hoechst 33258 with bovine serum albumin.

Ojha H *et al* (2009) Chem Pharm Bull (Tokyo) 57(5)
PubMedID 19420779