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DATASHEET

Fura-2 AM (Cell permeant)

Product overview

Name	Fura-2 AM (Cell permeant)
Cat No	HB0780
Biological action	Dyes & stains
Purity	>95%
Customer comments	*Reliable product - product worked well for live cell calcium imaging in multiple cell types i.e. primary hippocampal neurons and HEK293 kidney cells.* **Verified customer, University College Dublin** *Reliable - I have tried Fura-2 AM across multiple cell types and in different assays. Works well and is reliable.* **Verified customer, UEA: University of East Anglia**
Description	High affinity, cell permeable calcium indicator which is ratiometric and UV light excitable

Images

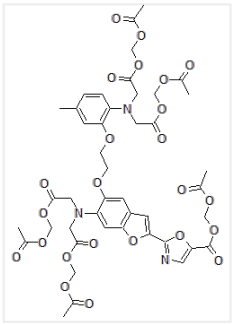
Biological Data

Biological description	Fura-2 AM (Cell permeant) is a high affinity, cell permeable calcium indicator which is ratiometric and UV light excitable. AM ester derivative of Fura-2. Fura-2 AM (Cell permeant) can noninvasively be loaded into live cells by incubation and is widely used for ratio-imaging microscopy and measuring intracellular calcium elevations in neurons and other excitable cells. Excitation 340/380nm, Emission 505nm.

Solubility & Handling

Storage instructions	-20°C
Solubility overview	Soluble in DMSO
Handling	This compound is light sensitive; exposure to light may affect compound performance. We therefore recommend storing the solid material and any solutions in the dark and protecting from light.
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	1-[2-(5-Carboxyoxazol-2-yl)-6-aminobenzofuran-5-oxy]-2-(2'-amino-5'-methyl-phenoxy)ethane-N,N,N',N'-tetraacetic acid, pentaacetoxymethyl ester
Molecular Weight	1001.9
Chemical structure	
Molecular Formula	$C_{44}H_{47}N_3O_{24}$
CAS Number	108964-32-5
PubChem identifier	3364574
SMILES	CC1=CC(=C(C=C1)N(CC(=O)OCOC(=O)C)CC(=O)OCOC(=O)C)OCCOC2=C(C=C3C(=C2)C=C(O3)C4=NC=C(O4)C(=O)OCOC(=O)C)N(CC(=O)OCOC(=O)C)CC(=O)OCOC(=O)C
InChi	InChI=1S/C44H47N3O24/c1-25-7-8-32(46(16-39(53)65-20-60-26(2)48)17-40(54)66-21-61-27(3)49)35(11-25)58-9-10-59-36-12-31-13-37(43-45-15-38(71-43)44(57)69-24-64-30(6)52)70-34(31)14-33(36)47(18-41(55)67-22-62-28(4)50)19-42(56)68-23-63-29(5)51/h7-8,11-15H,9-10,
InChiKey	VPSRLGDRGCKUTK-UHFFFAOYSA-N
MDL number	MFCD00036976
Appearance	Yellow solid

References

Calcium imaging of cortical neurons using Fura-2 AM.

Barreto-Chang OL *et al* (2009) J Vis Exp -23
PubMedID 19229178

Effects of transmitters and amyloid-beta peptide on calcium signals in rat cortical astrocytes: Fura-2AM measurements and stochastic model simulations.

Toivari E *et al* (2011) PLoS One 6(3)
PubMedID 21483471

Fura-2 measurement of cytosolic free Ca2+ in monolayers and suspensions of various types of animal cells.

Malgaroli A *et al* (1987) J Cell Biol 105(5)
PubMedID 3680375