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DATASHEET

Fura-2 AM (Cell permeant)

Product overview

Name Fura-2 AM (Cell permeant)

Cat No HB0780

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.

0,10110010 001101

Excitation 340/380nm, Emission 505nm.

For optimal cell loading, F-127 is available either as a 10% solution in water (HB16503) and 20% $\,$

solution in DMSO (HB9631).

Biological action

Purity

Customer comments

Dyes & stains >95%

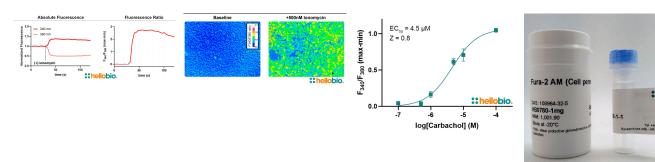
Reliable product - product worked well for live cell calcium imaging in multiple cell types i.e. primary hippocampal neurons and HEK293 kidney cells. Verified customer, University College Dublin

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

Application notes Please follow our Fura-2 AM protocol.

Solubility & Handling

Storage instructions Solubility overview

-20°C

Soluble in DMSO

Storage of solutions

Handling

Shipping Conditions Important

Prepare and use solutions on the same day if possible. Store solutions at -20 °C for up to one month if storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

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.

Stable for ambient temperature shipping. Follow storage instructions on receipt.

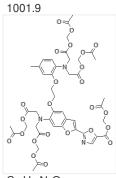
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

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 **Chemical structure**



Molecular Formula $C_{44}H_{47}N_3O_{24}$ **CAS Number** 108964-32-5 **PubChem identifier** 3364574

SMILES $\texttt{CC1} = \texttt{CC}(=\texttt{C}(\texttt{C} = \texttt{C1}) \\ \texttt{N}(\texttt{CC}(=\texttt{O}) \\ \texttt{OCOC}(=\texttt{O}) \\ \texttt{C}(\texttt{C} = \texttt{O}) \\ \texttt{CC}(=\texttt{O}) \\ \texttt{CCC2} = \texttt{C}(\texttt{C} = \texttt{C3} \\ \texttt{C} = \texttt{C2}) \\ \texttt{CC1} = \texttt{CC2} \\ \texttt{CC2} = \texttt{CC2} \\ \texttt{CC2} = \texttt{CC2} \\ \texttt{CC3} = \texttt{CC2} \\ \texttt{CC2} = \texttt{CC2} \\$

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VPSRLGDRGCKUTK-UHFFFAOYSA-N InChiKey

MDL number MFCD00036976 **Appearance** Yellow solid **Excitation** 340/380nm **Emission** 505nm

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