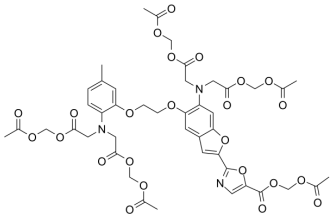
Fura-2 AM

Cat. No.:	HY-101897
CAS No.:	108964-32-5
Molecular Formula:	$C_{44}H_{47}N_3O_{24}$
Molecular Weight:	1001.85
Target:	Others
Pathway:	Others
Storage:	-20°C, protect from light * The compound is unstable in solutions, freshly prepared is recommended.



BIOLOGICAL ACTIVITY

Description	Fura-2 AM is a high affinity, intracellular, UV light-excitable and ratiometric fluorescent Ca^{2+} indicator.
In Vitro	Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs). Fura-2 AM diffuses across the cell membrane and is de-esterified by cellular esterases to yield Fura-2 free acid. 1. First, prepare the 1 mM Fura-2 AM stock by adding 50 µL of DMSO to a 50 µg vial. It is important to use dry DMSO packed under nitrogen and it is necessary to remove the DMSO with a needle by puncturing the septum to prevent hydration of the DMSO. After preparing the Fura-2 AM solution keep it in a dark dry place. Fura-2 AM in DMSO is stable at RT for 24 hours and is stable at -20 degrees in a dry container for several months. 2. Aliquot 2 mL of culture media into a 15 mL conical tube, warm to 37 deg. and add 2 µL of Fura-2 AM stock to generate a 1µM Fura-2 AM solution. Vortex the solution vigorously for 1 min. 3. Transfer the loading solution to a 35 mm tissue culture dish and transfer the coverslip with the cells into the dish. 4. Incubate the neurons at 37 degrees for 30 minutes in a dark incubator. Time the incubation precisely. 5. Prepare a 35 mm dish containing 2 mL of tissue culture media without Fura-2 AM. Remove the coverslip from the loading solution and place in the new dish. 6. Mount the coverslip on the imaging chamber. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Elife. 2021 Mar 24;10:e64830.
- Biochem Biophys Res Commun. 2020 Dec 17;533(4):1276-1282.
- bioRxiv. 2021 Jan 13.

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REFERENCES

[1]. Odmara L Barreto-Chang, et al. Calcium imaging of cortical neurons using Fura-2 AM. J Vis Exp. 2009 Jan 19;(23):1067.

Caution: Product has not been fully validated for medical applications. For research use only.

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