

# ZnAF-2 DA

Fluorescent probe for  $\text{Zn}^{2+}$ . Cell permeable.

Cell permeable derivative of ZnAF-2 (Prod. No. ALX-620-072). Fluorescent reagent (Ex(max): 492nm; Em(max): 514nm) for the detection of low concentration of zinc ion due to its strong affinity to zinc ion (dissociation constant: 2.7nM). The sample zinc ion can be specifically detected. Low background fluorescence supersensitizes the visualization for *in vivo* sample zinc ion.

Zinc (Zn) is the second most abundant transition metal in the body and it is essential as catalytic, structural and regulatory ion. Zinc ions are involved in homeostasis, immune responses, oxidative stress, apoptosis and aging. Zinc has been proposed to function as a conventional neurotransmitter for the presynaptic neuron and as a transmembrane signal to traverse the postsynaptic neuron. Aberrant zinc metabolism is associated with many neurological diseases including Alzheimer's disease, Parkinson's disease and epilepsy. The most suitable technique for *in vivo* monitoring of zinc has been proven to be fluorescent imaging.

Citations: 8

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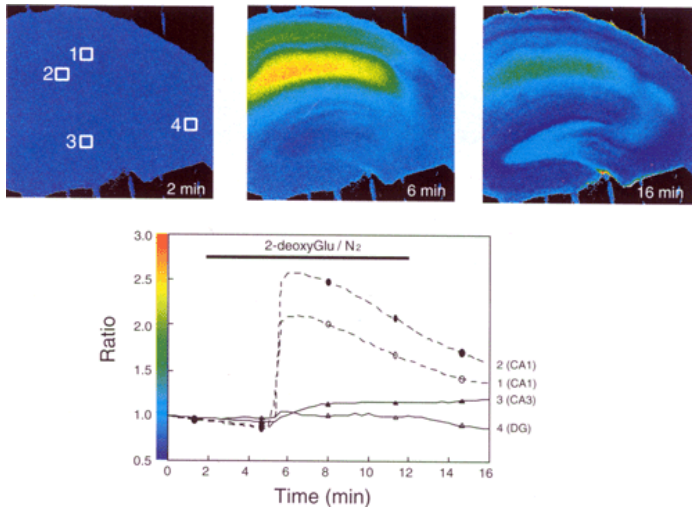
## Ordering Information

[Order Online »](#)

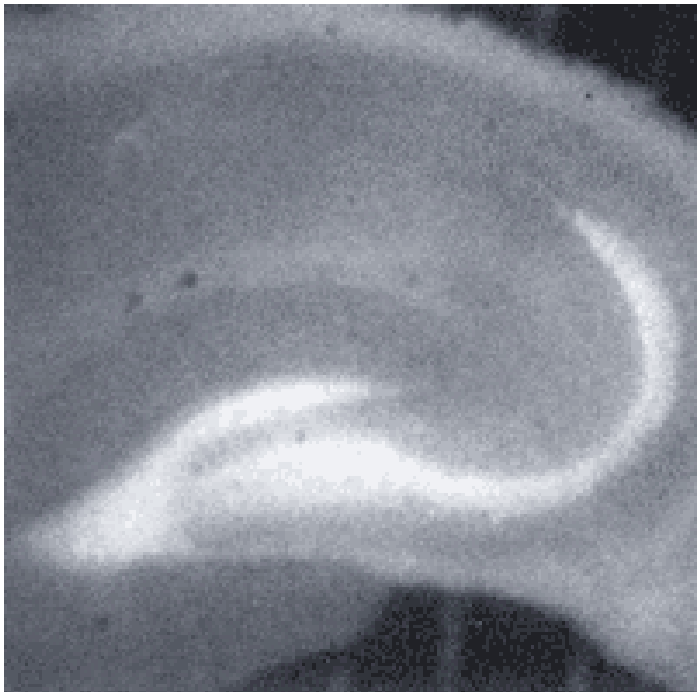
ALX-620-076-M001	1mg
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## Manuals, SDS & CofA

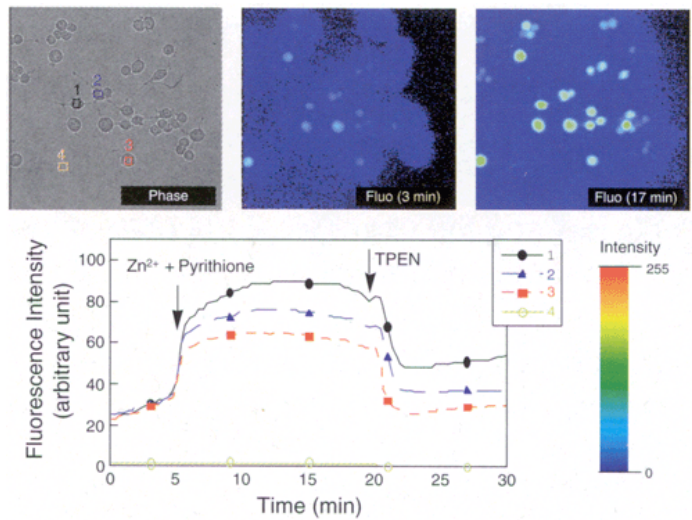
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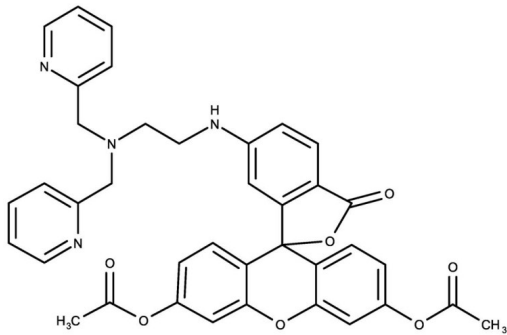
**Figure 4:** Changes in the imaging fluorescence of the hippocampal slices stained with ZnAF-2 DA over time.



**Figure 3:** Rat hippocampal slices stained with ZnAF-2 DA.



**Figure 2:** Zn<sup>2+</sup> imaging with macrophage (RAW 264.7).



## Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Prepare 500-5'000-fold dilution (~10-1µM) in HEPES buffer (0.1M phosphate, pH 7.4) immediately before use. BSA, phenol red and amines may affect the fluorescence and must be used with caution. Do not store the dilutions.
Handling	Protect from light. Keep under inert gas. After opening, prepare aliquots and store at -20°C.
Long Term Storage	-20°C
Shipping	Blue Ice

## Regulatory Status

RUO - Research Use Only

## Product Details

Alternative Name	6-[N-[N',N'-bis(2-Pyridinylmethyl)-2-aminoethyl]amino-3',6'-bis(acetyloxy)-spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one
Appearance	Liquid.
CAS	357339-96-9
Concentration	~5mM
Formula	$C_{38}H_{32}N_4O_7$
Formulation	Dissolved in 0.3ml DMSO.
MW	656.7

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ENZO LIFE SCIENCES,  
INC.  
Phone: 800.942.0430  
[info-  
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office  
ENZO LIFE SCIENCES  
(ELS) AG  
Phone: +41 61 926 8989  
[info-  
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

Belgium, The Netherlands  
& Luxembourg  
Phone: +32 3 466 0420  
[info-  
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

France  
Phone: +33 472 440 655  
[info-  
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany  
Phone: +49 7621 5500 526  
[info-  
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland  
Phone (UK customers):  
0845 601 1488  
Phone: +44 1392 825900  
[info-  
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)