

HQ-O RTD Amyloid Plaque Stain Reagent

Catalogue No.: TR-700-HQO

Description: HQ-O Ready-To-Dilute (RTDTM) Stain Reagent is designed to label amyloid plaques in paraffin-embedded or freshly cut frozen tissue sections. As a fluorescent zinc chelator, HQ-O is unique as it takes advantage of the known presence of concentrated zinc in amyloid plaques. Studies with HQ-O revealed that fluorescent plaque-like structures are only seen when synthetic A β x-42 is aggregated in the presence of zinc. Under blue light excitation, plaque structures appear bright green fluorescent in the brain parenchyma, correlating closely with plaque structures observed following A β antibody staining.

HQ-O RTDTM staining reagent is compatible with other fluorophores, such as DAPI, Hoechst and ethidium bromide, as well as fluorescent-labelled antibodies with emission spectra in the blue and/or red emission range of fluorescent microscopes. Due to its zinc-chelating characteristics, HQ-O RTDTM staining reagent may visualize globular structures within blood vessels and intravascular leucocytes.

HQ-O RTDTM staining reagent has multiple advantages over older blue-light exciting stains such as Thioflavin S. Thioflavin S typically exhibits relatively low contrast and resolution and suffers from bleed-through when excited by wavelengths other than blue light. HQ-O RTDTM staining reagent suffers none of these setbacks and not only provides a higher contrast and longer lasting dye, but because it lacks excitation bleed-through, HQ-O can be readily adapted to multiple labelling studies very easily.

To visualize the HQ-O tracer, it is recommended to use a filter cube designed for visualizing Fluorescein/FITC or a blue-light laser. Although it can be seen with both narrow and wide-band pass filters, there is no need to use a narrow band filter since the compound does not “bleed through” when excited with other filters. A recommended excitation range of a wide band filter is 447 – 503 nm, with a peak at 475.

Related products: TR-700-HQOT: HQ-O RTD™ Amyloid Plaque Stain Reagent (20 mL Trial Size).

TR-300-AG: Amylo-Glo RTD™ Amyloid Plaque Stain Reagent.

Batch No.: See product label.

Unit size: One bottle containing 40 mL of 10X HQ-O RTDTM solution This quantity will be sufficient for approximately 8 Coplin Jars or 2-4 staining dishes.

Applications: Detection and fluorescent-staining of amyloid plaques in paraffin-embedded or freshly cut frozen tissue sections.

Form: Liquid. 10X concentrated stock solution ready-to-dilute.

Storage: Store 10X stock solution at 2-8C protected from light, for up to 6 months. The diluted dye (1X) should be used within 24 hours.

Expiry Date: 6 months after purchase (10X stock solution)

General References: Schmued L et al. (2019) "High Contrast and Resolution Labeling of Amyloid Plaques in Tissue

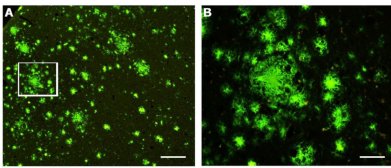
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Sections from APP-PS1 Mice and Humans with Alzheimer's Disease with the Zinc Chelator HQ-O: Practical and Theoretical Considerations." *Curr Alzheimer Res.* 2019 Jun; 16(7): 577–586.

Reagent Kit protocol: Please refer to our online product listing for current protocol/MSDS versions.

Labelling of amyloid plaques (green) in paraffin-processed cortex from a 1 year old APP/PS1 mouse model of AD (A). B: High-magnification view of the cortical region outlined in white in A.



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