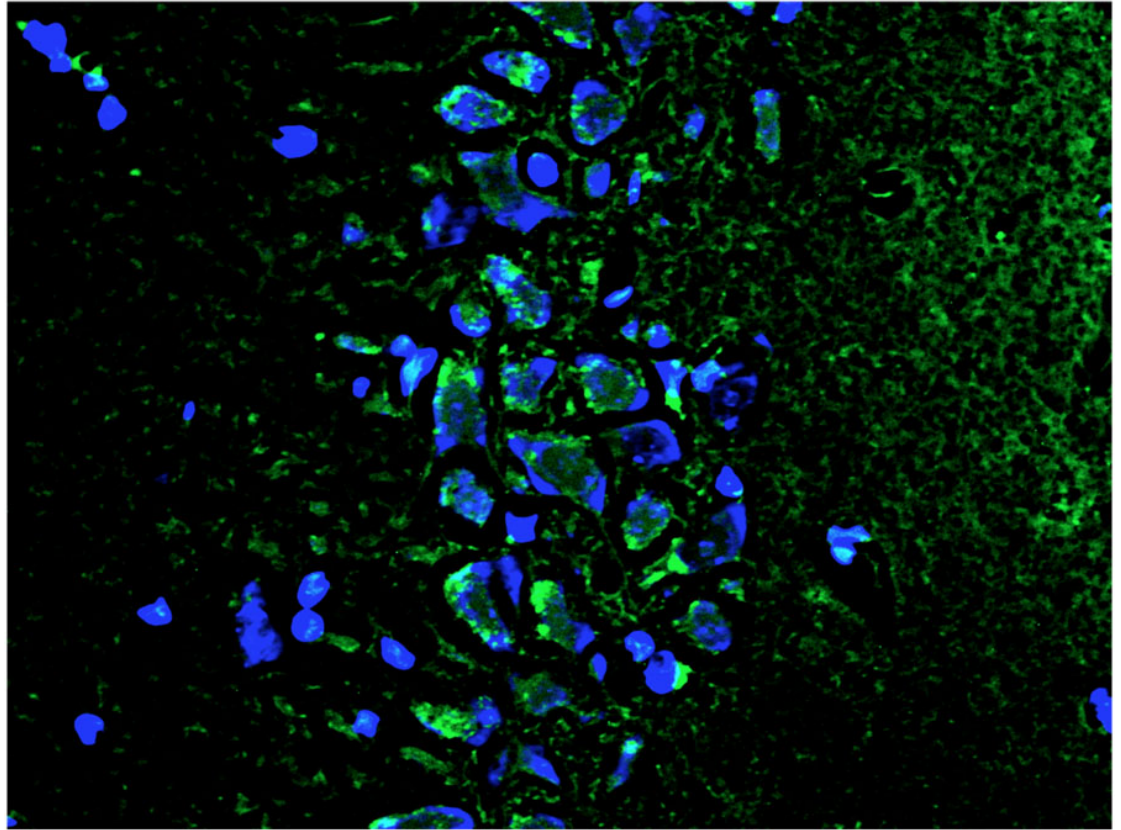


Product Info

PRODUCT NAME	Fluoro-Jade C (FJC) Ready-to-Dilute Staining Kit for identifying Degenerating Neurons
PRODUCT DESCRIPTION	The causes and effects of neuronal degeneration are of major interest to a wide variety of neuroscientists. Paralleling this growing interest is an increasing number of methods applicable to the detection of neuronal degeneration. Fluoro-Jade C stains all degenerating neurons regardless of specific insult or mechanism of cell death. Fluoro-Jade C exhibits the greatest signal to background ratio, as well as the highest resolution. This translates to a stain of maximal contrast and affinity for degenerating neurons. This makes it ideal for localising not only degenerating nerve cell bodies but also distal dendrites, axons and terminals. The dye is highly resistant to fading and is compatible with virtually all histological processing and staining protocols.
CATALOG NUMBER(S)	TR-100-FJT, TR-100-FJ
UNIT SIZE(S)	20 mL, 40 mL
BATCH NUMBER	Please see item label.
SPECIFICITY	Degenerating neurons, and neuronal degeneration. There is no specific staining in normal healthy brain. Note: Some researchers under some conditions report blood vessel staining with Fluoro Jade. This may be because Fluoro Jade is an analogue of eosin (which stains blood cells). In general, good perfusion and preparation of the tissue should help prevent blood vessel staining but it may not be possible to eliminate it entirely. In our experience it is generally possible to distinguish neuronal from blood vessels staining by eye.
APPLICATION(S)	FC, ICC, IHC-Frozen, IHC-Paraffin-embedded
APPLICATION DETAILS	The Fluoro-Jade C 'Ready to Dilute' (RTD) Staining Kit provides an easy to use assortment of Fluoro-Jade C, DAPI, sodium hydroxide and potassium permanganate in liquid form. Following our detailed protocol, Fluoro-Jade C labelled degenerating neurons are visualised with blue light excitation while DAPI counter stained cell nuclei are visualised with ultra-violet illumination. The Fluoro-Jade C Staining Kit can be used on all kinds of preserved tissues, including fresh-frozen, paraformaldehyde or formalin fixed, and formalin fixed, paraffin-embedded tissues.
TARGET	Degenerating neurons
ALTERNATIVE NAMES	FJC
TARGET HOST SPECIES	Human
SPECIES REACTIVITY	Human, Mouse, Other Mammals (Predicted), Rat
DETECTION METHOD	Fluorescence
EX/EM MAX	FJC visualization is accomplished using blue light or a 488 nm Laser. Excitation Peak: 495 nm Emission Peak: 521 nm Filter system for visualizing: Fluorescein/FITC

<p>KIT COMPONENTS</p>	<p>Materials provided:</p> <p>Sodium Hydroxide, Solution A (Dilute 1:10 prior to use) - 20/40 mL (TR-100-FJT/TR-100-FJ) Potassium Permanganate, Solution B (Dilute 1:10 prior to use) - 20/40 mL (TR-100-FJT/TR-100-FJ) Fluoro-Jade C, Solution C (Dilute 1:10 prior to use) - 20/40 mL (TR-100-FJT/TR-100-FJ) DAPI, Solution D (Add to diluted Fluoro-Jade C) - 20/40 mL (TR-100-FJT/TR-100-FJ)</p> <p>Equipment and Reagents required:</p> <p>Gelatin coated microscope slides Staining dishes/Coplin jars Cover slips DPX mounting media Slide warmer Convection oven Distilled water Ethanol Xylene</p> <p>Number of slides processed:</p> <p>The actual number of slides processed by this kit will depend largely upon the vessel that is used to incubate the slides. If using a standard Coplin Jar, its capacity is 50 mL and typically holds 5 slides per jar. If using such a device, then 80-100 slides stained per 50 ml of working solution (or, 5 ml of stock solution) could be processed in one day. Note the diluted dye is NOT stable and will not store overnight. It is best to use freshly diluted dye each time an experimental batch is started.</p> <p>Final working concentrations of FJC: 0.0001% Final working concentration of KMnO₄: 0.06%</p>
<p>FORMAT</p>	<p>The reagents in the Fluoro Jade kit (10X) are all supplied in a liquid format and are ready-to-dilute.</p>
<p>RECONSTITUTION INSTRUCTIONS</p>	<p>Dilute solutions as directed in the protocol instructions. Sometimes small precipitates may be present in the stock or diluted solutions. Complete mixing of the diluted solutions usually dissolves the precipitates. The precipitates, if not removed, do not usually cause any difficulties if the washing steps are followed as instructed. Optional: For entirely clean solutions Biosensis recommends filtering the diluted solution through ethanol and NaOH compatible syringe or vacuum filter devices prior to contact with tissue slides.</p>
<p>CONCENTRATION</p>	<p>10X</p>
<p>PURITY DESCRIPTION</p>	<p>Purified</p>
<p>STORAGE INSTRUCTIONS</p>	<p>The unopened kit can be stored for up to 6 months at 2-8°C after the date of receipt. The kit and components should be stored protected from light. Diluted FJC dye solutions are not stable and should be used within 4 hours of making. The other diluted solutions can be reused and stored for up to 48 hours if refrigerated and protected from light. Best results require freshly diluted solutions. We recommend using aseptic techniques when handling the reagents to avoid bacterial growth and contamination.</p> <p>The FJC Ready to dilute kit is shipped ambient and stable at room temperature during transport. Refrigerate upon arrival, do not freeze.</p>
<p>EXPIRATION DATE</p>	<p>Unopened kit 6 months at 2-8°C protected from light. See Storage instructions for working solutions recommendations.</p>

MAIN IMAGE



MAIN IMAGE CAPTION

Fluoro-Jade C (FJC) staining (green) of degenerating neurons in the CA3 region of the hippocampus in old diabetic rats. Blue: DAPI nuclear stain. Picture courtesy of Dr. Wang and colleagues. Results of this study were published in Wang S. *et al.* (2020), *Geroscience*, PMID: 32696219.

ADDITIONAL IMAGES STATEMENT

Please refer to the Biosensis website for additional product images.

REFERENCES STATEMENT

Please refer to our website for product-specific references.

REGULATORY STATUS

For research use only.