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Datasheet for A003-04

Avidin Cy3 Conjugated

Overview

Description:	Avidin CY3 Conjugated - A003-04
Item No.:	A003-04
Size:	1 mg
Applications:	IF

Product Details

Background:	Avidin Cy3 Conjugated is suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms.
Synonyms:	Avidin Cy3 Conjugated
Conjugate:	Cy3™
F/P Ratio:	3.7

Target Details

Purity/Specificity:	Avidin Cy3 Conjugated is electrophoretically purified avidin isolated from egg white conjugated to the chromophore Cy3.29 and purified chromatographically. A single precipitin arc was observed against rabbit anti-egg white avidin when assayed by immunoelectrophoresis.
Relevant Links:	• UniProtKB - P02701

Application Details

Suggested Applications:	IF (Based on references)
Application Note:	Avidin Cy3 Conjugated is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	1:500 - 1:2,500
FLISA:	1:10,000 - 1:50,000

IF:	1:1,000 - 1:5,000

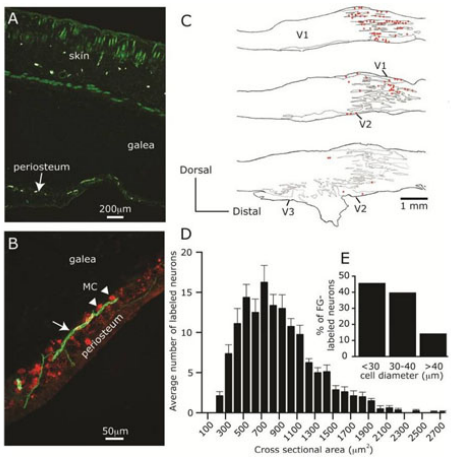
Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

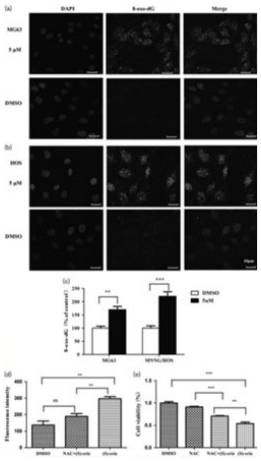
Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

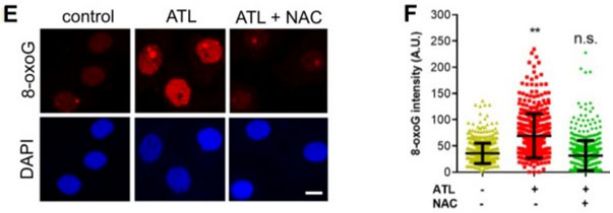
Images



Immunofluorescence Microscopy
Localization and size distribution of calvarial periosteal projecting primary afferents in the TG. (A) A cross section through the scalp at a level between Bregma and Lambda (the area where the retrograde tracer FG was injected) showing peripherin-IR nerve fibers in the periosteum and skin. Note the lack of galea innervation suggesting that afferents that innervate the periosteum do not send collaterals that innervate more dorsal scalp tissues. (B) A high magnification image of a cross section through the periosteum showing peripherin-IR afferent nerve bundles (arrows) as well as periosteal mast cells (MCs, arrowheads). (C) Drawings of horizontal TG sections showing the distribution of retrograde-labeled neurons that project to the calvarial periosteum. Note the predominantly ophthalmic (V1) distribution. (D) Size distribution of TG cells that project to the calvarial periosteum. Data is the mean ± SEM of the cross-sectional areas of the labels cells obtained from 8 experiments. (E) Based on their cell diameters, the vast majority of the calvarial periosteal projecting cells were small or medium size. Fig. 1. PMID: 24769138.



Immunofluorescence Microscopy
The effects of (S)-crizotinib on osteosarcoma were produced through targeting MTH1 and activating ROS. (a, b) Detection of 8-oxod-GTP incorporation into DNA in MG63 and MNNG/HOS cells treated with DMSO, 5 μmol/l (S)-crizotinib by staining with Cy3-conjugated avidin. (c) Quantification of 8-oxod-GTP incorporation into DNA: bars are mean±SD from three independent experiments. **P<0.01 and ***P<0.001 compared with the DMSO group, Student's t-test. (d) Quantification of data of intracellular reactive oxygen species by dichlorofluorescin fluorescence in OS cells following exposure to DMSO, 5 μmol/l (S)-crizotinib alone, or combined with 5 mmol/l NAC for 24 h. Bars are mean±SD from three independent experiments. P>0.05, **P<0.01, Student's t-test. (e) Cell viability determined by the CCK8 assay in OS cells following exposure to DMSO, 5 mmol/l NAC, 5 μmol/l (S)-crizotinib alone, or combined with 5 mmol/l NAC for 72 h. Bars are mean±SD from three independent experiments. **P<0.01 and ***P<0.001, Student's t-test. Fig. 6. PMID: 29420337.



Immunofluorescence Microscopy
A nontoxic dose of ATL induces oxidative DNA damage and activates PARP in cancer cells. (e, f) Immunofluorescent staining of cellular 8-oxoG by Cy3-conjugated avidin. PC-3 cells were treated by 10 µM ATL for 12 h (scale bar: 10 µm). Nuclear 8-oxoG intensity was measured using the ImageJ software and the data were processed by the Prism software. Fig. 1. PMID: 32029902.

Bottle
Avidin CY3 Conjugated

References

- Chen G et al. Light-Elicited and Oxygen-Saved Iridium Nanocapsule for Oxidative Damage Intensified Oncotherapy. *Molecules.* (2023)
- Wang H, Zhang S, Song L, Qu M, Zou Z.) Synergistic lethality between PARP-trapping and alantolactone-induced oxidative DNA damage in homologous recombination-proficient cancer cells. *Oncogene* (2020)
- Qing, X et al. Anticancer effect of (S)-crizotinib on osteosarcoma cells by targeting MTH1 and activating reactive oxygen species. *Anti-Cancer Drugs* (2018)
- Zhao, J et al. The sensory innervation of the calvarial periosteum is nociceptive and contributes to headache-like behavior. *Pain* (2014)

Disclaimer

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