

**Antibody to Melanopsin, Affinity-purified**
RABBIT POLYCLONAL

Catalog Number: AB-N39
Quantity: 50 micrograms
Format: PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4).
Host: Rabbit
Clone: UF008

Background: Intrinsically photosensitive retinal ganglion cells (ipRGCs) contain melanopsin. The ipRGCs, with their amazing long processes, are involved in the perception of light and dark and are circadian rhythm determinants. Affinity-purified Anti-Melanopsin (UF008) has very high specificity to mouse ipRGCs.

Specificity & Preparation: Affinity-purified anti-Melanopsin (UF008) was raised against the 15 N-terminal extracellular amino acids of mouse melanopsin. This antibody does not cross-react with melanopsins of other species, it is very specific for mouse.

Usage: Applications include immunofluorescence (1 µg/ml) and targeting (targeting agent in Melanopsin-SAP, Cat. #IT-44). This antibody works in both cross-section and flat-mount staining.

Storage: Store the antibody at -20°C for one year. Avoid repeated freezing and thawing. Gently spin down material 5-10 seconds in a microfuge before use.



**Antibody to Melanopsin, Affinity-purified
RABBIT POLYCLONAL**

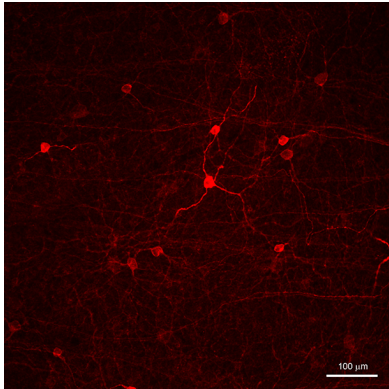


Selected References:

- Göz D, Studholme K, Lappi DA, Rollag MD, Provencio I, Morin LP (2008) Targeted destruction of photosensitive retinal ganglion cells with a saporin conjugate alters the effects of light on mouse circadian rhythms. PLoS ONE 3(9):e3153.

Scan to view all product references.

To view protocol(s) for this and other products please visit: www.ATSBio.com/library/protocols



2-photon confocal microscope image from a single z-series using AB-N39 in flat-mount mouse retina at 1:4000 and an AlexaFluor-568 secondary antibody. This image is a single optic plane through the ganglion cell layer that also shows some proximal RGC dendrites.

Image courtesy of Matthew Van Hook, Ph.D.

	AB-N38	AB-N39	Negative Control
Flat-mount retina			
Flat-mount retina			
Retina Sections 1:2500			
Retina Sections 1:4000			

Anti-Melanopsin staining on either flat-mount or cross-section staining of mouse retina. Staining of the antibody is shown in green. Blue is DAPI and tdTomato (red) signal from OPN4^{cre}; R26^{stop-tdT} mouse line. Cat. #AB-N38 (neat sera) is lot #205-130 and Cat. #AB-N39 (affinity-purified) is lot #205-129. *Images supplied courtesy of Wenjin Xu, Xiarong Lu, and Ignacio Provencio at the University of Virginia.*