## SANTA CRUZ BIOTECHNOLOGY, INC.

# Retinal Cell Marker (3BA8): sc-80976



## BACKGROUND

The retina of the vertebrate eye is a light-sensitive body that sends images of the visual world to the visual cortex of the brain. It is a complex structure consisting of ten layers, of which there are four main ones: pigment epithelium, the photoreceptor layer, bipolar cells, and finally, the ganglion cell layer. Making up the outermost layer of the retina, cones mediate bright light and high-resolution color vision, while rods respond to dim light and contribute to monochromatic vision. When light stimulates rods and cones, they send a proportional synaptic response to bipolar cells. Horizontal and amacrine cells modify the signal before the image is sent on to ganglion cells, which then transmit the signal through the optic nerve. There are many disorders that affect the retina, including macular degeneration, hypertensive and diabetic retinopathy, retinoblastoma, cone-rod dystrophy (CORD) and retinitis pigmentosa.

#### REFERENCES

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- 2. McNaughton, P.A. 1990. Light response of vertebrate photoreceptors. Physiol. Rev. 70: 847-883.
- 3. Wässle, H. and Boycott, B.B. 1991. Functional architecture of the mammalian retina. Physiol. Rev. 71: 447-480.
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- 5. Yau, K.W. and Hardie, R.C. 2009. Phototransduction motifs and variations. Cell 139: 246-264.
- 6. Koenekoop, R.K. 2009. Why do cone photoreceptors die in rod-specific forms of retinal degenerations? Ophthalmic. Genet. 30: 152-154.
- 7. Walter, P. and Mazinani, B. 2010. Macular dystrophies—hereditary macular degenerations. Klin. Monbl. Augenheilkd. 227: R1-R14.
- 8. Organisciak, D.T. and Vaughan, D.K. 2010. Retinal light damage: mechanisms and protection. Prog. Retin. Eye Res. 29: 113-134.

## SOURCE

Retinal Cell Marker (3BA8) is a mouse monoclonal antibody raised against protein extracted from embryonic brain tissue of chicken origin.

#### PRODUCT

Each vial contains 200 µg lgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

#### **APPLICATIONS**

Retinal Cell Marker (3BA8) is recommended for detection of an antigen expressed by peripapillary glial cells, some amacrine cells and some cells in the ganglion cell layer of avian origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941or UltraCruz® Hard-set Mounting Medium: sc-359850.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.