SANTA CRUZ BIOTECHNOLOGY, INC.

goat anti-rat IgG-B: sc-2041

SANTA CRUZ®

BIOTECHNOLOGY

The Power to Question

BACKGROUND

Santa Cruz Biotechnology's secondary antibodies are available conjugated to either an enzyme, biotin or fluorophore for use in a variety of antibody-based applications including Western Blot, immunostaining, flow cytometry and ELISA. Secondary antibodies are commonly affinity purified against immobilized whole IgG or against antibody fragments. Santa Cruz Biotechnology offers an extensive selection of secondary antibodies optimized for immunohistochemistry and flow cytometry, and are labeled with either biotin, FITC (fluorescein isothiocyanate), Texas Red®, TRITC (tetramethyl rhodamine iso-thiocyanate), PE (phycoerythrin), PerCP (peridinin chlorophyll protein complex) and PerCP-Cy5.5 (peridinin chlorophyll protein complex with cyanin-5.5). Immunohistochemistry and flow cytometry secondary antibodies are specific for commonly used primary antibody species, including goat, rabbit, mouse and rat.

SOURCE

goat anti-rat IgG-B is a pre-adsorbed, affinity purified secondary antibody raised in goat against rat IgG and conjugated to biotin.

PRODUCT

Each vial contains 200 µg rat IgG (pre-adsorbed with mouse and human IgG) in 0.5 ml of PBS containing 0.02% sodium azide.

APPLICATIONS

goat anti-rat IgG-B is recommended for detection of rat IgG by immunofluorescence staining (starting dilution: 1:100, dilution range: 1:100-1:400) and immunohistochemical staining (starting dilution: 1:100, dilution range: 1:100-1:400).

RECOMMENDED SUPPORT PRODUCTS

A. TISSUE CULTURE CELLS

- CrystalCruz™ Cover Glasses, 22 x 50 mm, precleaned: sc-24975
- CrystalCruz™ Micro Slides 75 x 25 mm; 72 frosted sides: sc-24976
- PBS (Phosphate Buffered Saline), powder, 1 packet: sc-24947
- Hydrogen Peroxide, 30% solution, 100 ml: sc-203336

B. FROZEN TISSUE SECTIONS

- Organo/Limonene Mount, non-toxic alternative to Permount, 100 ml: sc-45087
- UltraCruz™ Mounting Medium, aqueous-based, 10 ml: sc-24941
- ImmunoHistoMount, aqueous-based mounting medium, 30 ml: sc-45086
- Immuno In Situ Mount, for use with in situ hybridization, 30 ml: sc-45088

C. FORMALIN-FIXED, PARAFFIN-EMBEDDED TISSUE SECTIONS

- Paraffin, for the preparation of tissue samples for staining, 500 g: sc-286633
- Xylenes, mixed isomers with ethylbenzene, 500 ml: sc-237422
- Hematoxylin, Gill's Formulation #2; nuclear counter stain, 100 ml: sc-24973
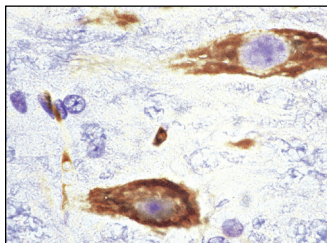
RESEARCH USE

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

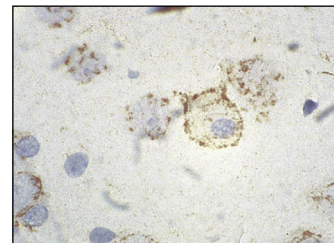Texas Red® is a registered trademark of Molecular Probes (6/02).

STORAGE

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

DATA

goat anti-rat IgG-B: sc-2041. Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal rat brain showing intense cytoplasmic staining. Antibody tested: MEK-1 (H-8): sc-6250.

goat anti-rat IgG-B: sc-2041. Immunoperoxidase staining of formalin-fixed, paraffin-embedded normal rat brain. Note distinct membrane localization of Ob receptor. Antibody tested: Ob-R (M-18): sc-1834.

SELECT PRODUCT CITATIONS

1. Koistinaho, M., et al. 2002. Expression of human apolipoprotein E down-regulates amyloid precursor protein-induced ischemic susceptibility. Stroke 33: 1905-1910.

2. Park, S., et al. 2004. Neurovascular protection reduces early brain injury after subarachnoid hemorrhage. Stroke 35: 2412-2417.

3. Shimamura, N., et al. 2006. Inhibition of integrin $\alpha v \beta 3$ ameliorates focal cerebral ischemic damage in the rat middle cerebral artery occlusion model. Stroke 37: 1902-1909.

4. Huang, Q.Y., et al. 2006. Adenosine A2A receptors in bone marrow-derived cells but not in forebrain neurons are important contributors to 3-nitropropionic acid-induced striatal damage as revealed by cell-type-selective inactivation. J. Neurosci. 26: 11371-11378.

5. Inman, K.E., et al. 2006. Brachyury is required for elongation and vasculogenesis in the murine allantois. Development 133: 2947-2959.

6. de Witte M.A., et al. 2006. Targeting self-antigens through allogeneic TCR gene transfer. Blood 108: 870-877.

7. Rottenberg, S., et al. 2007. Selective induction of chemotherapy resistance of mammary tumors in a conditional mouse model for hereditary breast cancer. Proc. Natl. Acad. Sci. USA 104: 12117-12122.

8. González-Navarro, H., et al. 2008. Molecular mechanisms of atherosclerosis in metabolic syndrome: role of reduced IRS2-dependent signaling. Arterioscler Thromb Vasc Biol. 28: 2187-2194.

9. Chen, W., et al. 2008. HIF-1α inhibition ameliorates neonatal brain injury in a rat pup hypoxic-ischemic model. Neurobiol. Dis. 31: 433-441.

10. Yamazaki, J., et al. 2009. Identification of cancer stem cells in a Tax-transgenic (Tax-Tg) mouse model of adult T-cell leukemia/lymphoma. Blood 114: 2709-2720.

11. González-Navarro, H., et al. 2010. p19(ARF) deficiency reduces macrophage and vascular smooth muscle cell apoptosis and aggravates atherosclerosis. J. Am. Coll. Cardiol. 55: 2258-2268.