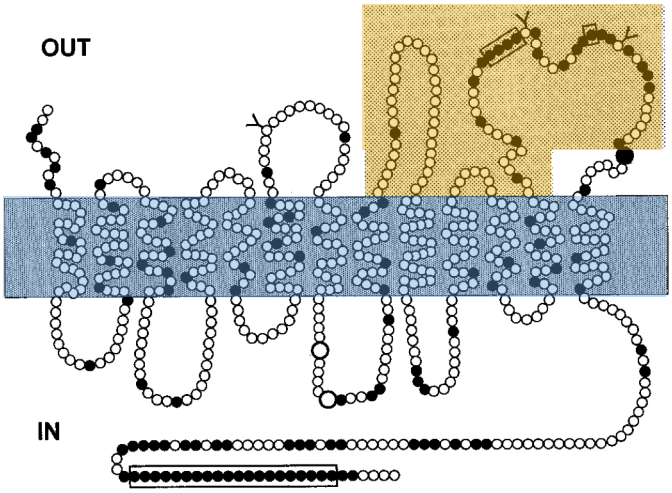
NIS monoclonal antibody clone VJ2

Product Description

Product Name: NIS monoclonal antibody clone VJ2
Catalog Number: REA003
Lot Number: IM01
Unit Size: 250 µL

Species: Mouse
Antigen: Human sodium iodide symporter (hNIS)
Isotype: IgG1
Reactivity: Human, sheep[1]

This is a mouse monoclonal IgG1 antibody directed against the human sodium iodide symporter (hNIS). The epitope recognized by the antibody is located between amino acids 272 and 515, which encompasses the last three extracellular loops of the protein (see diagram below). This antibody detects the native form of NIS and does not work with the denatured form. The antibody also does not cross react with rat or mouse NIS.



A schematic representation of the NIS protein within the cell membrane (blue) is shown above. The epitope recognized by the NIS antibody clone VJ2, comprising the last three extracellular loops, is indicated in yellow.

Storage Instructions

This antibody can be stored short term (1-2 weeks) at 2-6°C. For longer term storage, aliquot and store at or below -20°C. Avoid repeated freeze/thaw cycles.

Recommended Uses

The NIS monoclonal antibody clone VJ2 is suitable for flow cytometry and immunofluorescence studies of both intact and permeabilized cells. It does not detect the denatured form of NIS and should not be used for immunoblotting. The recommended dilutions are:

1:10-1:50 Flow cytometry
1:10-1:50 Immunofluorescence

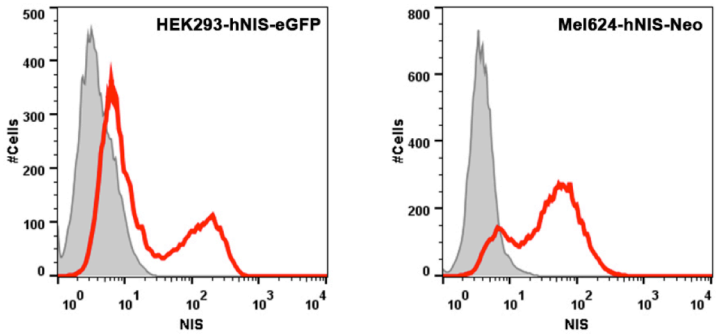
Product Citations:

[1]Homback-Klonisch, Mol Cell Endocrinol. 2013. 10:98-108.
[2]Pohlenz J. *et al.* J Clin Endocrinol Metab. 2000. 85:2366-2369.
[3]Marsee et al. Cancer Gene Therapy. 2004. 11: 121-127.
[4]Hou et. al. PLoS One. 2009. 10:e6200.
[5]Higuchi et. al. J Nucl Med. 2009. 50:1088-1094.
[6]Hou, J Clin Endocrinol Metab. 2010. 95:820-828.

Certificate of Analysis

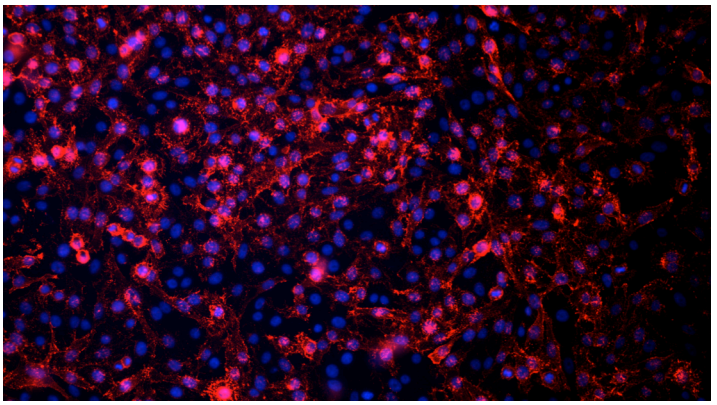
Testing performed by Imanis Life Sciences

Flow cytometry

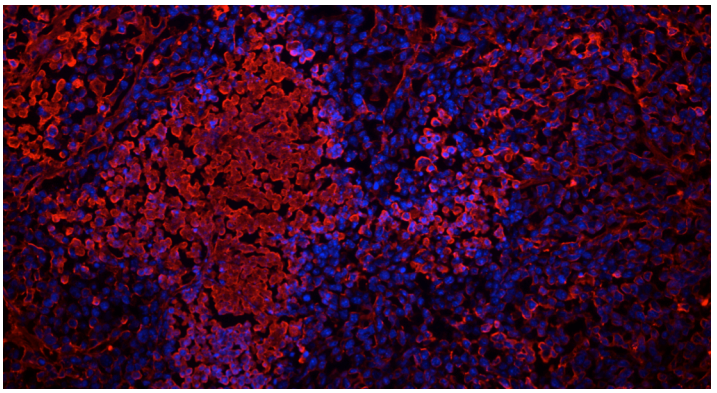


HEK293-hNIS-eGFP (left) or Mel624-hNIS-Neo (right) cells, which overexpress hNIS, were fixed with paraformaldehyde and stained with NIS antibody clone VJ2 (1:50 dilution) followed by an Alexa Fluor 555-conjugated anti-mouse secondary antibody. Stained and unstained control (grey) cells were subjected to flow cytometry analysis.

Immunofluorescent staining



Mel624-hNIS-Neo cells, which stably express hNIS, were fixed with paraformaldehyde and stained with NIS antibody clone VJ2 (1:50 dilution) followed by an Alexa Fluor 555-conjugated anti-mouse secondary antibody and Hoechst 33342 to stain nuclei. Cell photos were taken at 200X magnification.



A cryosection of MPC-11 tumor treated with VSV-mIFNβ-NIS was fixed with acetone and stained with NIS antibody clone VJ2 (1:50 dilution) followed by an Alexa Fluor 555-conjugated anti-mouse secondary antibody and Hoechst 33342 to stain nuclei. Cell photos were taken at 200X magnification.

Quality control by: RLV
Quality Assurance by: LS
Effective Date: 20-Apr-2016

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Imanis Life Sciences
221 1st Ave SW STE 102
Rochester MN 55902
Tel: (507) 218-2559
Email: info@imanislife.com