Technical Data Sheet

PE Mouse Anti-NeuroD1

Product Information

Material Number: 563001
Alternate Name: Class A basic helix-loop-helix protein 3, bHLHa3, BETA2, NeuroD
Size: 50 tests
Vol. per Test: 5 µl
Clone: R8-294
Immunogen: Human NeuroD1 Recombinant Protein
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Human
Tested in Development: Mouse

Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The R8-294 monoclonal antibody specifically binds to Neurogenic differentiation factor 1 (NeuroD1). NeuroD1 is a basic helix-loop-helix (bHLH) transcription factor that is also known as BHLHA3, Beta-cell E-box transactivator 2, BETA2 and NeuroD. NeuroD1 interacts with other bHLH proteins and binds the insulin E-box sequence to regulate pancreatic islet cell development. It also plays a key role in central nervous system (CNS) and sensory nervous system neuron development. Specifically, it is required for the terminal differentiation of neurons during late stages of neurogenesis in the CNS (cerebral cortex, hippocampus, and cerebellum) and the sensory nervous system (eye, inner ear, and olfactory system). During antibody development, the purified R8-294 monoclonal antibody was found to detect NeuroD1 by western blot and indirect immunofluorescent staining followed by flow cytometric analysis or imaging analysis.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Intracellular staining (flow cytometry) Routinely Tested

Flow cytometric analysis of NeuroD1 expression in human retinoblastoma: Y79 cells (ATCC, HTB-18™) were fixed with BD Cytofix™ fixation buffer (Cat. No. 554655) and permeabilized with BD Phosflow™ Perm buffer III (Cat. No. 558050). The cells were stained with either PE Mouse IgG1, κ isotype control (dashed line, Cat. No. 554680) or PE Mouse Anti-NeuroD1 monoclonal antibody (solid line) at matched concentrations. Flow cytometry was performed on a BD LSRFortessa™ flow cytometry system.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

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Intracellular staining (flow cytometry) Routinely Tested

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).

2. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.

3. All other brands are trademarks of their respective owners.

4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at wwwbdbiosciencescomcolors.

7. Please refer to wwwbdbiosciencescompharmingenprotocols for technical protocols.

References


