Human HNF-4α/NR2A1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 843716

Catalog Number: MAB4605

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HNF-4α/NR2A1 in ELISAs and Western blots.
Source	Monoclonal Mouse IgG_{2B} Clone # 843716
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human HNF-4α/NR2A1 Val130-Ser330 Accession # P41235
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

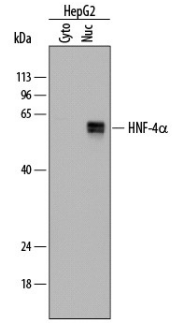
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10^6 cells	See Below
Simple Western	10 µg/mL	See Below

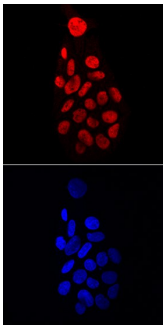
DATA

Western Blot



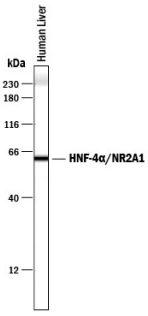
Detection of Human HNF-4α/NR2A1 by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line. Gels were loaded with 10 µg of cytoplasmic (Cyto) and 5 µg of nuclear (Nuc) extracts. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human HNF-4α/NR2A1 Monoclonal Antibody (Catalog # MAB4605) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for HNF-4α/NR2A1 at approximately 50-55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



HNF-4α/NR2A1 in HepG2 Human Cell Line. HNF-4α/NR2A1 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Mouse Anti-Human HNF-4α/NR2A1 Monoclonal Antibody (Catalog # MAB4605) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

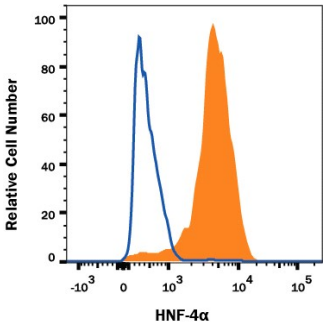
Simple Western



Detection of Human HNF-4α/NR2A1 by Simple Western™. Simple Western lane view shows lysates of human liver tissue, loaded at 0.2 mg/mL. A specific band was detected for HNF-4α/NR2A1 at approximately 62 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human HNF-4α/NR2A1 Monoclonal Antibody (Catalog # MAB4605). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.

Intracellular Staining by Flow Cytometry



Detection of HNF-4 alpha/NR2A1 in HepG2 Human Cell Line by Flow Cytometry. HepG2 human hepatocellular carcinoma cell line was stained with Mouse Anti-Human HNF-4 alpha/NR2A1 Monoclonal Antibody (Catalog # MAB4605, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram) followed by PE-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3/Transcription Factor Fixation & Permeabilization Buffer Kit (Catalog # FC012). View our protocol for Staining Intracellular Molecules.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

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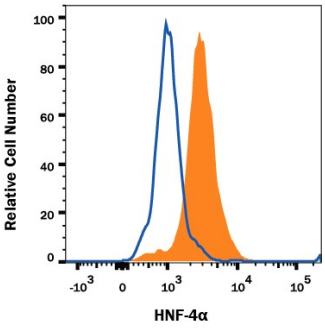
Intracellular Staining by Flow Cytometry



Detection of HNF-4 alpha/NR2A1 in Human Endodermal Cells by Flow Cytometry. BG01V human embryonic stem cell line differentiated to endodermal cells (StemXVivo Endoderm Kit, Catalog # SC019B) was stained with Mouse Anti-Human HNF-4 alpha/NR2A1 Monoclonal Antibody (Catalog # MAB4605, filled histogram or isotype control antibody (Catalog # MAB0041, open histogram) followed by PE-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3/Transcription Factor Fixation & Permeabilization Buffer Kit (Catalog # FC012). View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

HNF-4α is a transcription factor that binds DNA as a homodimer. HNF-4α is important in liver, kidney, and intestinal development. It has also been intensely studied as one of a variety of genes responsible for diabetes mellitus. HNF-4α has been shown in knock out mice to be essential for the morphogenic and functional differentiation of hepatocytes. HNF-4α is a dominant regulator of epithelial phenotypes able to drive the mesenchymal-to-epithelial transition when expressed in fibroblasts.

Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449