abcam

ab95659

PE Anti-NUR77 antibody [12.14]

Anti-NUR77 antibody [12.14] conjugated to PE - suitable for flow cytometry, and reacts with mouse samples. Clone [12.14] is a mouse monoclonal antibody cited in 11 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Mouse Nr4a1. Database link P12813
Clone number	12.14
Purification technique	Affinity purification Protein G

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1 µg for 10^5-10^8 Cells

Notes	in a final volume of 100 µL

Target data

See full target information Nr4a1

Function	Orphan nuclear receptor. Binds the NGFI-B response element (NBRE) 5'-AAAGGTCA-3' (PubMed:37001519). Binds 9-cis-retinoic acid outside of its ligand-binding (NR LBD) domain (By similarity). Participates in energy homeostasis by sequestrating the kinase STK11 in the nucleus, thereby attenuating cytoplasmic AMPK activation (By similarity). Regulates the inflammatory response in macrophages by regulating metabolic adaptations during inflammation, including repressing the transcription of genes involved in the citric acid cycle (TCA) (PubMed:30134173). Inhibits NF-kappa-B signaling by binding to low-affinity NF-kappa-B binding sites, such as at the IL2 promoter (PubMed:30134173). May act concomitantly with NR4A2 in regulating the expression of delayed-early genes during liver regeneration (By similarity). Plays a role in the vascular response to injury (PubMed:22427340). In the cytosol, upon its detection of both bacterial lipopolysaccharide (LPS) and NBRE-containing mitochondrial DNA released by GSDMD pores during pyroptosis, it promotes non-canonical NLRP3 inflammasome activation by stimulating association of NLRP3 and NEK7.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	NUR77 also known as NR4A1 is an orphan nuclear receptor and transcription factor with a molecular mass of around 65 kDa. This protein plays an important role in mediating gene expression by binding DNA at specific response elements. It is expressed in various tissues including the thymus spleen and central nervous system. NUR77 achieves its mechanical function by regulating gene transcription involved in cell proliferation apoptosis and metabolism.
Biological function summary	The functions of NUR77 impact multiple cellular processes that are essential for maintaining cellular homeostasis. As part of its biological roles NUR77 can form complexes with other nuclear receptors and influence gene expression. It is particularly significant in T-cell receptor signaling where it influences the balance

	between cell survival and cell death. This modulation helps in the regulation of immune functions and cellular development.
Pathways	NUR77 integrates into the MAPK signaling and apoptosis pathways. It interacts with proteins such as Bcl-2 and p53 facilitating cellular responses to stress and developmental cues. In the MAPK pathway NUR77 can modulate transcriptional activities affecting cell proliferation and differentiation while in apoptotic pathways it contributes to the regulation of programmed cell death making it a critical modulator in these contexts.
Associated diseases and disorders	NUR77 has been associated with cancer and atherosclerosis. Its role in apoptosis makes it a point of interest in cancer research where altered NUR77 expression can influence tumor growth and resistance to therapy. In the context of atherosclerosis aberrant activity of NUR77 affects lipid metabolism and inflammation. Through its link to pathways involving Bcl-2 and p53 NUR77 remains a significant target in both therapeutic research and disease management.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

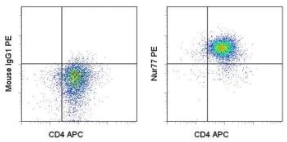
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - PE Anti-NUR77 antibody [12.14] (ab95659)

NUR77 Flow Cytometry staining using mouse Anti-NUR77 antibody

Flow cytometry images showing staining of unstimulated (left) and 2-hr PMA and Ionomycin stimulated (right) C57BL/6 thymocytes with an Anti-Mouse CD4 APC antibody, followed by intracellular staining with 0.5 µg of ab95659 using a Foxp3 Staining Buffer Set. Total viable cells were used for analysis.

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