Product datasheet

Anti-Vitamin D Receptor antibody - ChIP Grade ab3508

Overview

Product name: Anti-Vitamin D Receptor antibody - ChIP Grade
Description: Rabbit polyclonal to Vitamin D Receptor - ChIP Grade
Host species: Rabbit
Tested applications: Suitable for: ICC/IF, IHC-Fr, GSA, IP, WB, CHIPseq, IHC-P, ChIP
Species reactivity: Reacts with: Mouse, Rat, Chicken, Human
Predicted to work with: Cow, Pig, Zebrafish, Saguinus oedipus
Immunogen: Synthetic peptide corresponding to Human Vitamin D Receptor aa 395-413.
Sequence: EEHSKQYRCLSFQPECSMK
Database link: P11473

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: Preservative: 0.05% Sodium azide
Purity: Whole antiserum
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab3508 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function
Nuclear hormone receptor. Transcription factor that mediates the action of vitamin D3 by controlling the expression of hormone sensitive genes. Regulates transcription of hormone sensitive genes via its association with the WINAC complex, a chromatin-remodeling complex. Recruited to promoters via its interaction with the WINAC complex subunit BAZ1B/WSTF, which mediates the interaction with acetylated histones, an essential step for VDR-promoter association. Plays a central role in calcium homeostasis.

Involvement in disease
Defects in VDR are the cause of rickets vitamin D-dependent type 2A (VDDR2A) [MIM:277440]. A disorder of vitamin D metabolism resulting in severe rickets, hypocalcemia and secondary hyperparathyroidism. Most patients have total alopecia in addition to rickets.

Sequence similarities
Belongs to the nuclear hormone receptor family. NR1 subfamily. Contains 1 nuclear receptor DNA-binding domain.

Domain
Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.

Cellular localization
Nucleus.

Application | Abreviews | Notes |
---|---|---|
EMSA | | Use at an assay dependent concentration. |
ICC/IF | | Use at an assay dependent concentration. |
IHC-Fr | | Use at an assay dependent concentration. |
GSA | | Use at an assay dependent concentration. |
IP | | Use at an assay dependent concentration. |
WB | | 1/100. Detects a band of approximately 53 kDa (predicted molecular weight: 48 kDa). 1/100. Detects a band of approximately 53 kDa in COS-7 cells transfected with the human gene (predicted molecular weight: 48 kDa). This antibody supershifts DNA fragments that contain VDR response elements (e.g., rat osteocalcin and mouse osteopontin upstream elements). |
CHIIPseq | | Use at an assay dependent concentration. PubMed: 21846776 |
IHC-P | | 1/2000 - 1/4000. |
ChiP | | Use at an assay dependent concentration. PubMed: 17244627Use at an assay dependent dilution. |

Images
Ab3508 staining Human normal jejunum. Staining is localized to the nucleus. Left panel: with primary antibody at 1/2000. Right panel: isotype control.

Sections were stained using an automated system DAKO Autostainer Plus, at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 AR buffer, citrate pH 6.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.

ab3508 staining the Vitamin D Receptor in mVDR-transfected and untransfected Mouse NIH/3T3 cells by ICC/IF (immunocytochemistry/immunofluorescence). Cells were paraformaldehyde fixed, permeabilized with Triton X-100 and blocked with 1% BSA/5%HS for 30 minutes at 20°C. The sample was incubated with the primary antibody (1/50 in 1% BSA/5% HS in 1xPBS) for 1 hour 30 minutes at 20°C. A Cy3®-conjugated goat anti-rabbit polyclonal (1/200) was used as the secondary.

ab3508 at a 1/2000 dilution staining Vitamin D Receptor in whole Rat embryo tissue sections by Immunohistochemistry (frozen sections) incubated for 16 hours at 25°C. Samples fixed in 4% PFA prior to cutting at 30µm thickness. Blocked with 5% serum for 1 hour at 25°C. Secondary used at 1/200 polyclonal Goat anti-rabbit conjugated to Alexa Fluor 488.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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