

Anti-Aryl hydrocarbon Receptor/AHR Antibody Picoband®

Catalog Number: PB9419

About Ahr

AHR (aryl hydrocarbon receptor), also called bHLHe76, is a member of the family of basic helix-loop-helix transcription factors. AhR is a cytosolic transcription factor that is normally inactive, bound to several co-chaperones. The AHR gene is mapped on 7p21.1. Estrogenic actions of AHR agonists were detected in wildtype ovariectomized mouse uteri, but were absent in Ahr -/- or Er-alpha -/- ovariectomized mice. Complex assembly and ubiquitin ligase activity of CUL4B (AHR) in vitro and in vivo are dependent on the AHR ligand. In the CUL4B (AHR) complex, ligand-activated AHR acts as a substrate-specific adaptor component that targets sex steroid receptors for degradation. Cd4-positive cells from mice lacking Ahr developed Th17 responses but failed to produce IL22 and did not show enhanced Th17 development. Activation of Ahr during induction of EAE accelerated disease onset and increased pathology in wildtype mice, but not in Ahr -/- mice. The TDO-AHR pathway is active in human brain tumors and is associated with malignant progression and poor survival. Ahr activity within ROR-gamma-t-positive ILC could be induced by dietary ligands such as those contained in vegetables of the family Brassicaceae.

Overview

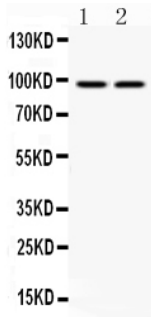
Product Name	Anti-Aryl hydrocarbon Receptor/AHR Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Aryl hydrocarbon Receptor/AHR Antibody Picoband® catalog # PB9419. Tested in WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P30561

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of mouse AHR, different from
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	the related human sequence by five amino acids, and from the related rat sequence by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Mouse, Rat

Anti-Aryl hydrocarbon Receptor/AHR Antibody Picoband® (PB9419) Images



Western blot analysis of AHR using anti-AHR antibody (PB9419). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Rat Brain Tissue Lysate at 50ug, Lane 2: Mouse Liver Tissue Lysate at 50ug. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-AHR antigen affinity purified polyclonal antibody (Catalog # PB9419) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for AHR at approximately 96 kDa. The expected band size for AHR is at 96 kDa.

1 Publications Citing This Product

1. PubMed ID: 33204326, Yang X,Liu H,Ye T,Duan C,Lv P,Wu X,Liu J,Jiang K,Lu H,Yang H,Xia D,Peng E,Chen Z,Tang K,Ye Z. AhR activation attenuates calcium oxalate nephrocalcinosis by diminishing M1 macrophage polarization and promoting M2 macrophage polarization. Theranostics.2020

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