Nature Biosciences

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AhR Rabbit mAb [985V]

Cat NO. :A59396

Information:

Applications	Reactivity:	UniProt ID:	MW(kDa)	Host	Isotype	Size
WB	H	P35869,A9YTQ3	100 kDa	Rabbit	IgG	100ul,200ul

Applications detail:

Application	Dilution
WB	1:1000-2000

The optimal dilutions should be determined by the end user

Conjugate:

UnConjugate

Form:

Liquid

sensitivity:

Endogenous

Purification:

Protein A purification

Specificity:

Antibody is produced by immunizing animals with a synthetic peptide at the sequence of Human AhR

Storage buffer and conditions:

Antibody store in 10 mM PBS, 0.5mg/ml BSA, 50% glycerol（buffer）.

Shipped at 4°C. Store at-20°C or -80°C.

Products are valid for one natural year of receipt.Avoid repeated freeze / thaw cycles.

Tissue specificity:

Expressed in all tissues tested including blood, brain, heart, kidney, liver, lung, pancreas and skeletal muscle.

Expressed in retinal photoreceptors (PubMed:29726989)..

Subcellular location:

Cytoplasm. Nucleus.

Function:

Introduction: **WB:** Western Blot **IP:** Immunoprecipitation **IHC:** Immunohistochemistry **ChIP:** Chromatin Immunoprecipitation **ICC/IF:** Immunocytochemistry/ Immunofluorescence **F:** Flow Cytometry

Cross Reactivity: **H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Hr:** horse

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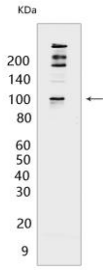
Ligand-activated transcription factor that enables cells to adapt to changing conditions by sensing compounds from the environment, diet, microbiome and cellular metabolism, and which plays important roles in development, immunity and cancer (PubMed:30373764, PubMed:23275542, PubMed:7961644, PubMed:32818467). Upon ligand binding, translocates into the nucleus, where it heterodimerizes with ARNT and induces transcription by binding to xenobiotic response elements (XRE) (PubMed:30373764, PubMed:23275542, PubMed:7961644). Regulates a variety of biological processes, including angiogenesis, hematopoiesis, drug and lipid metabolism, cell motility and immune modulation (PubMed:12213388). Xenobiotics can act as ligands: upon xenobiotic-binding, activates the expression of multiple phase I and II xenobiotic chemical metabolizing enzyme genes (such as the CYP1A1 gene) (PubMed:7961644). Mediates biochemical and toxic effects of halogenated aromatic hydrocarbons (PubMed:7961644). Next to xenobiotics, natural ligands derived from plants, microbiota, and endogenous metabolism are potent AHR agonists (PubMed:18076143). Tryptophan (Trp) derivatives constitute an important class of endogenous AHR ligands (PubMed:32866000, PubMed:32818467). Acts as a negative regulator of anti-tumor immunity: indoles and kynurenic acid generated by Trp catabolism act as ligand and activate AHR, thereby promoting AHR-driven cancer cell motility and suppressing adaptive immunity (PubMed:32818467). Regulates the circadian clock by inhibiting the basal and circadian expression of the core circadian component PER1 (PubMed:28602820). Inhibits PER1 by repressing the CLOCK-ARNTL/BMAL1 heterodimer mediated transcriptional activation of PER1 (PubMed:28602820). The heterodimer ARNT:AHR binds to core DNA sequence 5'-TGCGTG-3' within the dioxin response element (DRE) of target gene promoters and activates their transcription (PubMed:28602820)..

Validation Data：

AhR Rabbit mAb [985V] Images



Western blot（SDS PAGE） analysis of extracts from 293T cells transfected with Human AhR protein.Using AhR Rabbit mAb [985V] at dilution of 1:1000 incubated at 4℃

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IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 1% w/v Milk, 1X TBST at 4°C overnight.