

AHR Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF2938a**Specification**

AHR Antibody (internal region) - Product Information

Application	IHC, E
Primary Accession	P35869
Other Accession	NP_001612.1 , 196
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	96147

AHR Antibody (internal region) - Additional Information**Gene ID** 196**Other Names**

Aryl hydrocarbon receptor, Ah receptor, AhR, Class E basic helix-loop-helix protein 76, bHLHe76, AHR, BHLHE76

Dilution

IHC~~1:100~500

E~~N/A

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

AHR Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

AHR Antibody (internal region) - Protein Information**Name** AHR {ECO:0000303|PubMed:8393992, ECO:0000312|HGNC:HGNC:348}**Function**

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:<a

[23275542](http://www.uniprot.org/citations/23275542), PubMed:[30373764](http://www.uniprot.org/citations/30373764), PubMed:[32818467](http://www.uniprot.org/citations/32818467), PubMed:[7961644](http://www.uniprot.org/citations/7961644)). Upon ligand binding, translocates into the nucleus, where it heterodimerizes with ARNT and induces transcription by binding to xenobiotic response elements (XRE) (PubMed:[23275542](http://www.uniprot.org/citations/23275542), PubMed:[30373764](http://www.uniprot.org/citations/30373764), PubMed:[7961644](http://www.uniprot.org/citations/7961644)). Regulates a variety of biological processes, including angiogenesis, hematopoiesis, drug and lipid metabolism, cell motility and immune modulation (PubMed:[12213388](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/7961644), PubMed:[33193710](http://www.uniprot.org/citations/33193710)). Mediates biochemical and toxic effects of halogenated aromatic hydrocarbons (PubMed:[34521881](http://www.uniprot.org/citations/34521881), PubMed:[7961644](http://www.uniprot.org/citations/7961644)). Next to xenobiotics, natural ligands derived from plants, microbiota, and endogenous metabolism are potent AHR agonists (PubMed:[18076143](http://www.uniprot.org/citations/18076143)). Tryptophan (Trp) derivatives constitute an important class of endogenous AHR ligands (PubMed:[32818467](http://www.uniprot.org/citations/32818467), PubMed:[32866000](http://www.uniprot.org/citations/32866000)). 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](http://www.uniprot.org/citations/32818467)). Regulates the circadian clock by inhibiting the basal and circadian expression of the core circadian component PER1 (PubMed:[28602820](http://www.uniprot.org/citations/28602820)). Inhibits PER1 by repressing the CLOCK-BMAL1 heterodimer mediated transcriptional activation of PER1 (PubMed:[28602820](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/28602820)).

Cellular Location

Cytoplasm. Nucleus. Note=Initially cytoplasmic; upon binding with ligand and interaction with a HSP90, it translocates to the nucleus.

Tissue Location

Expressed in all tissues tested including blood, brain, heart, kidney, liver, lung, pancreas and skeletal muscle Expressed in retinal photoreceptors (PubMed:29726989)

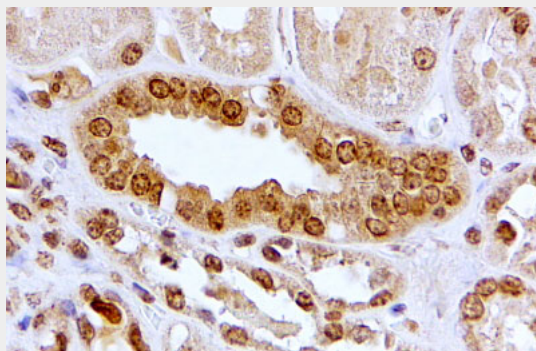
AHR Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

AHR Antibody (internal region) - Images



AF2938a (2 µg/ml) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, HRP-staining.

AHR Antibody (internal region) - References

Inflammatory signaling and aryl hydrocarbon receptor mediate synergistic induction of interleukin 6 in MCF-7 cells Hollingshead BD, Beischlag TV, Dinatale BC, Ramadoss P, Perdew GH Cancer Res. 2008 May 15;68(10):3609-17 PMID: 18483242