SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-AHR antibody

Catalog Number: SL1416R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	AHR
Immunogen:	KLH conjugated synthetic peptide derived from human AHR: 10-120/948
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 ICC/IF=1:100-500 IF=1:100-500 Flow-Cyt=2ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Rat(predicted:Mouse)
Predicted MW.:	93kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	This gene encodes a ligand-activated transcription factor involved in the regulation of biological responses to planar aromatic hydrocarbons. This receptor has been shown to regulate xenobiotic-metabolizing enzymes such as cytochrome P450. Its ligands included a variety of aromatic hydrocarbons. **Function:** Ligand-activated transcriptional activator. Binds to the XRE promoter region of genes it activates. Activates the expression of multiple phase I and II xenobiotic chemical metabolizing enzyme genes (such as the CYP1A1 gene). Mediates biochemical and toxic effects of halogenated aromatic hydrocarbons. Involved in cell-cycle regulation. Likely to play an important role in the development and maturation of many tissues. **Subcellular Location:** Cytoplasm. Nucleus. Initially cytoplasmic; upon

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	binding with ligand and interaction with a HSP90, it translocates to the nucleus. **Tissue Specificity:** Expressed in all tissues tested including blood, brain, heart, kidney, liver, lung, pancreas and skeletal muscle. **Similarity:** Contains 1 basic helix-loop-helix (bHLH) domain. Contains 1 PAC (PAS-associated C-terminal) domain. Contains 2 PAS (PER-ARNT-SIM) domains. **Database links:** **Entrez Gene:** 196 Human **Entrez Gene:** 11622 Mouse **Entrez Gene:** 25690 Rat Omim: 600253 Human **SwissProt:** P35869 Human **SwissProt:** P30561 Mouse **SwissProt:** P41738 Rat **Unigene:** 171189 Human **Unigene:** 341377 Mouse **Unigene:** 91370 Rat transcriptional regulatory factor（Transcriptin Regulators） The aryl hydrocarbon receptor (AHR) is a ligand-activated transcription factor,can mediate toxic (including carcinogenic) responses to polycyclic aromatic hydrocarbon compounds,and also participates in some important biological processes,such as Signal transduction, Cell differentiation, Apoptosis, etc. AHR exists in various tissues and cells of the human body, including lung, liver, kidney, placenta, palatine tonsil, and Blymphocyte. AHR has regulatory effects on growth, development, and physiological functions,and plays a promoting role in the occurrence and development of some cancers (such as breast cancer and ovarian cancer)。

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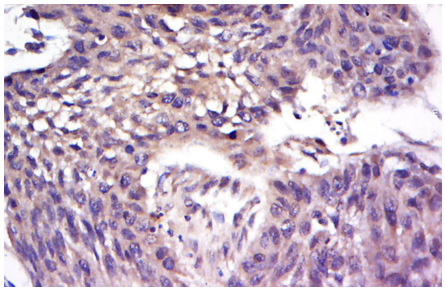
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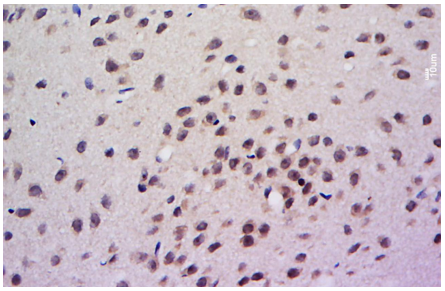
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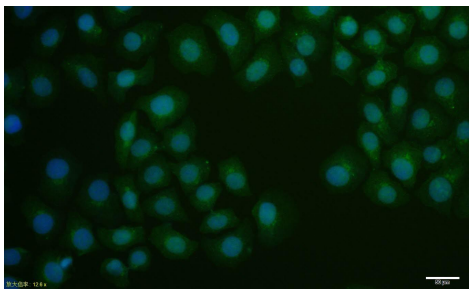
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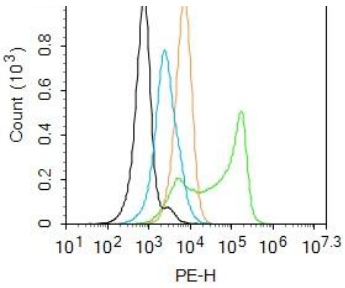
Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min;
Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-AHR Polyclonal Antibody, Unconjugated(SL1416R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: Rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min;
Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-AHR Polyclonal Antibody, Unconjugated(SL1416R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



HepG2 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (AHR) polyclonal Antibody, Unconjugated (SL1416R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Blank control:U937.
Primary Antibody (green line): Rabbit Anti-AHR antibody (SL1416R)
Dilution: 2μg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody : Goat anti-rabbit IgG-PE
Dilution: 1μg /test.
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

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