Mouse AHR Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6697

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse AHR in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse AHR Asn706-Ser805 (Thr758Ala) Accession # P30561
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

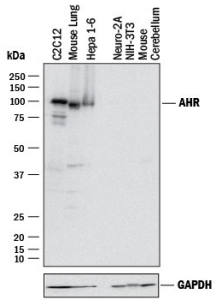
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

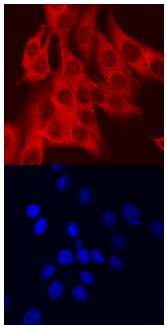
DATA

Western Blot



Detection of Mouse AHR by Western Blot. Western blot shows lysates of C2C12 mouse myoblast cell line, mouse lung tissue, Hepa 1-6 mouse hepatoma cell line, Neuro-2A mouse neuroblastoma cell line (negative control), NIH-3T3 mouse embryonic fibroblast cell line (negative control), and mouse cerebellum tissue (negative control). PVDF membrane was probed with 1 µg/mL of Sheep Anti-Mouse AHR Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6697) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for AHR at approximately 110 kDa (as indicated). GAPDH(Catalog # AF5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



AHR in C2C12 Mouse Cell Line. AHR was detected in immersion fixed C2C12 mouse myoblast cell line using Sheep Anti-Mouse AHR Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6697) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

AHR (Aryl-hydrocarbon receptor; also bHLHE76) is a 100-105 kDa member of the bHLH/PAS transcription factor family. It is widely expressed and serves many functions. First, it binds multiple xenobiotic chemicals in the cytoplasm. This induces dimerization with ARNT, translocation to the nucleus, and activation of P450 genes such as CYP1A1 and UGT1A6. Second, it appears to block cell cycle progression, possibly via a downregulation of CDK proteins. And third, it blocks apoptosis by interacting with E2F1, thus silencing Tap73 and Apaf1 genes. Mouse AHR precursor is 848 amino acids (aa) in length. It contains a nine aa prosegment, plus an 839 aa mature molecule that contains a DNA binding motif (aa 12-39), a bHLH region (aa 40-80), two PAS domains (aa 116-336) and one PAC segment that stabilizes the PAS domains (aa 342-383). There are multiple alleles for mouse AHR. One 95-97 kDa allele shows a premature truncation after Ser805, while a second 112 kDa allele shows a 41 aa substitution for aa 843-848. Over aa 706-805, mouse AHR shares 87% and 63% aa identity with rat and human AHR, respectively.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449