

Aryl Hydrocarbon Receptor (AhR) Active Protein | AhR active protein

Active Aryl Hydrocarbon Receptor (AhR)

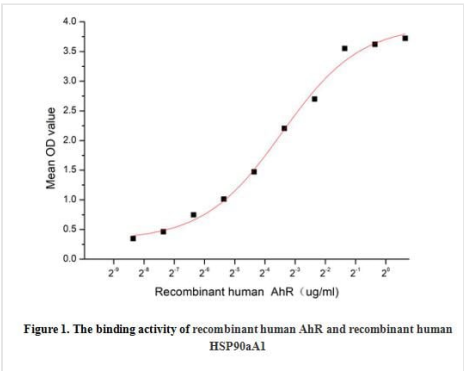
CATALOG # AAA161844	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Aryl Hydrocarbon Receptor (AhR); Active Aryl Hydrocarbon Receptor (AhR); Aryl Hydrocarbon Receptor; BHLHE76; Class E basic helix-loop-helix protein 764; AhR active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Val128-Asn 399
Applicable Applications for AhR active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8.1
Research Area	Signal transduction, Tumor immunity, Infection immunity, Dermatology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

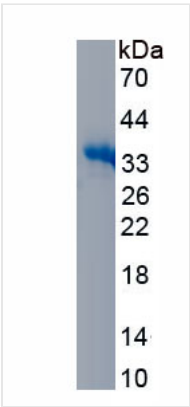


Bioactivity

Aryl Hydrocarbon Receptor (AhR), also known as bHLHE76, is a 110 kDa member of the bHLH/PAS transcription factor family. It is widely expressed (breast, lung, liver), and serves many functions. It is a ligand-activated transcription factor best known for its role in sensing xenobiotics and regulating the expression of genes involved in xenobiotic metabolism, including drug transporters and drug metabolizing enzymes. Heat Shock Protein 90kDa Alpha A1 (HSP90aA1) has been identified as an interactor of AhR, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human AhR and recombinant human HSP90aA1. Briefly, AhR were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to HSP90aA1-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-AhR pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450 nm immediately. The binding activity of AhR and HSP90aA1 was shown in Figure 1, and this effect was in a dose dependent manner, the EC50 for this effect is 0.09 ug/mL.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for AhR active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4502003
NCBI GeneID	196
NCBI Accession #	NP_001612.1
NCBI GenBank Nucleotide #	NM_001621.4
UniProt Accession #	P35869; Q13728; Q13803; Q13804; A4D130
Molecular Weight	96,147 Da
NCBI Official Full Name	aryl hydrocarbon receptor
NCBI Official Synonym Full Names	aryl hydrocarbon receptor
NCBI Official Symbol	AHR
NCBI Official Synonym Symbols	bHLHe76
NCBI Protein Information	aryl hydrocarbon receptor; AH-receptor; ah receptor; aromatic hydrocarbon receptor; class E basic helix-loop-helix protein 76
UniProt Protein Name	Aryl hydrocarbon receptor
UniProt Gene Name	AHR
UniProt Synonym Gene Names	BHLHE76; Ah receptor; AhR; bHLHe76

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/aryl-hydrocarbon-receptor-ahr/161844>