Ah Receptor (A-3): sc-133088

**BACKGROUND**

2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) is the prototype for a family of toxic halogenated aromatic compounds that are thought to cause adverse reproductive, immunologic and metabolic effects. Many biological responses to TCDD are mediated through ligand binding to the aromatic hydrocarbon (Ah) receptor, also known as AhR. Ah Receptor is a ligand-dependent transcription factor that interacts with specific DNA sequences, termed xenobiotic responsive elements (XREs), and that lies upstream of TCDD-inducible genes. Upon binding to the ligand, Ah Receptor binds to the Ah Receptor nuclear translocator (Arnt) and the complex is translocated from the cytoplasm to the nucleus. Arnt is required for Ah Receptor to bind to XRE. Ah Receptor and Arnt are members of a family of transcription factors that contain a basic helix-loop-helix motif and a common "PAS" motif.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: AHR (human) mapping to 7p21.1; Ahr (mouse) mapping to 12 A3.

**SOURCE**

Ah Receptor (A-3) is a mouse monoclonal antibody raised against amino acids 637-848 of Ah Receptor of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChiP applications, sc-133088 X, 200 µg/0.1 ml.

Ah Receptor (A-3) is available conjugated to agaroase (sc-133088 AC), 500 µg/0.25 ml agaroase in 1 ml, for IP; to HRP (sc-133088 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrín (sc-133088 PE), fluorescein (sc-133088 FITC), Alexa Fluor® 488 (sc-133088 AF488), Alexa Fluor® 546 (sc-133088 AF546), Alexa Fluor® 594 (sc-133088 AF594) or Alexa Fluor® 647 (sc-133088 AF647), 200 µg/ml, for WB (RGB), IF, HICP and FCM; and to either Alexa Fluor® 680 (sc-133088 AF680) or Alexa Fluor® 790 (sc-133088 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Ah Receptor (A-3) is recommended for detection of Ah Receptor of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Ah Receptor (A-3) X TransCruz antibody is recommended for Gel Supershift and ChiP applications.

Molecular Weight (predicted) of Ah Receptor: 96 kDa.

**DATA**

Ah Receptor (A-3): sc-133088. Western blot analysis of Ah Receptor expression in PC-3 (A), MDA-MB-435S (B), A-431 (C) and USSO 205 (D) whole cell lysates.

Ah Receptor (A-3): sc-133088. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing nuclear staining of glandular cells (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.