Hybridomas Producing Anti-Ah Receptor Monoclonal Antibodies (clones Rpt 1 and Rpt 9)

High-specificity monoclonal antibodies have been developed to bind and immunoprecipitate the aryl hydrocarbon receptor (AhR) across human, rat, and mouse models, offering new tools for studying gene regulation and biological effects.

The aryl hydrocarbon receptor (AhR) is involved in the regulation of several genes, including those for xenobiotic-metabolizing enzymes. A wide range of biological effects can be attributed to ligand-mediated activation of the AhR. These effects include thymic atrophy, a slow wasting syndrome; development of malformed organisms or growths; and tumor promotion.

Researchers at Purdue University were able to isolate six hybridomas secreting monoclonal antibodies, which bind with high specificity to the AhR. These six hybridomas were also able to immunoprecipitate the AhR.

Advantages:

-Can bind to the AhR in humans, rats, and mice

-Can immunoprecipitate the AhR

TRL: 7

Intellectual Property:

N/A, N/A, N/A

Keywords: Aryl Hydrocarbon Receptor, AhR, monoclonal antibodies, hybridomas, xenobiotic-metabolizing enzymes, xenobiotic, thymic atrophy, tumor promotion, immunoprecipitation, ligand-mediated activation, Antibodies, Biotechnology, Cell lines

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