

## DESCRIPTION

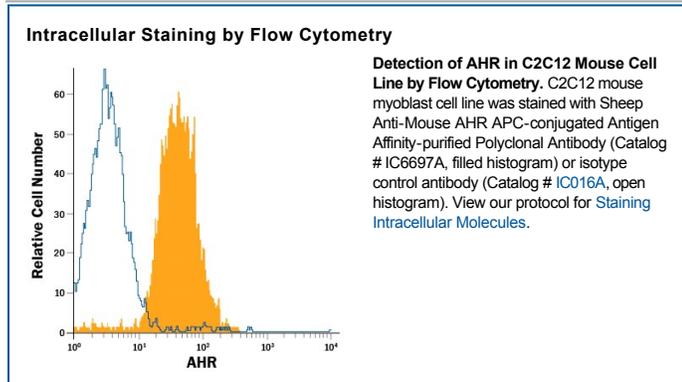
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects human and mouse AHR in Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse AHR Asn706-Ser805 (Thr758Ala) Accession # P30561
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## 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
Intracellular Staining by Flow Cytometry	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

## 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.