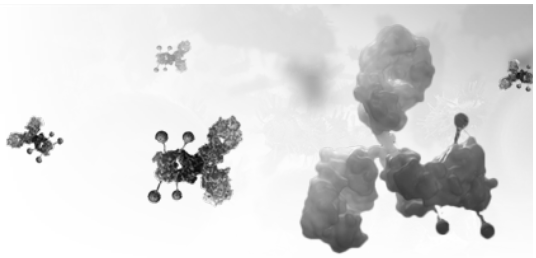

Mouse anti-Human HIF-1β/ARNT1 monoclonal antibody, clone 30/IJG-2c (CABT-B9218)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human HIF-1β/ARNT1 aa. 461-574
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Mouse, Rat
Clone	30/IJG-2c
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 μg/ml
Size	50 μg, 150 μg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction	The Ah-receptor (AHR) is a ligand activated transcription factor that mediates the biological

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effects of agonists. AHR dimerizes with a structurally related protein known as ARNT (arylhydrocarbon-receptor nuclear transducer). This heterodimer binds enhancer elements and induces the expression of target genes, specifically those involved in the metabolism of xenobiotics. ARNT1 and ARNT2 are members of the basic-helix-loop-helix-PAS family of heterodimeric transcription factors, which also includes AHR, hypoxia-inducible factor-1α (HIF-1α), and the Drosophila single-minded protein (Sim). While ARNT2 expression is limited to brain and kidney, ARNT1 exhibits ubiquitous expression. A targeted disruption of the Arnt locus in the mouse yields embryonic stem cells that fail to activate genes that normally respond to low oxygen tension. Arnt -/- embryos do not survive and show defective angiogenesis of the yolk sac and branchial arches, stunted development, and wasting. Thus, in addition to its regulation of xenobiotic metabolism genes, ARNT is thought to induce developmental gene expression resulting in vascularization of the developing embryo.

Keywords	HIF1; TANGO; bHLHe2; HIF1BETA; HIF-1beta; ARNT; ARNT1; aryl hydrocarbon receptor nuclear translocator

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