

# ARNT Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant ARNT.

Catalog # AT1199a

## Product Information

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<b>Application</b>	WB, IHC, IF, E
<b>Primary Accession</b>	<a href="#">P27540</a>
<b>Other Accession</b>	<a href="#">BC060838</a>
<b>Reactivity</b>	Human
<b>Host</b>	mouse
<b>Clonality</b>	monoclonal
<b>Isotype</b>	IgG2a Kappa
<b>Clone Names</b>	3D10
<b>Calculated MW</b>	86636

## Additional Information

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<b>Gene ID</b>	405
<b>Other Names</b>	Aryl hydrocarbon receptor nuclear translocator, ARNT protein, Class E basic helix-loop-helix protein 2, bHLHe2, Dioxin receptor, nuclear translocator, Hypoxia-inducible factor 1-beta, HIF-1-beta, HIF1-beta, ARNT, BHLHE2
<b>Target/Specificity</b>	ARNT (AAH60838, 1 a.a. ~ 110 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
<b>Dilution</b>	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
<b>Format</b>	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
<b>Storage</b>	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
<b>Precautions</b>	ARNT Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

## Background

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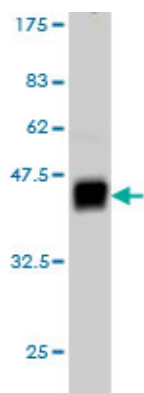
The aryl hydrocarbon (Ah) receptor is involved in the induction of several enzymes that participate in xenobiotic metabolism. The ligand-free, cytosolic form of the Ah receptor is complexed to heat shock protein 90. Binding of ligand, which includes dioxin and polycyclic aromatic hydrocarbons, results in translocation of the ligand-binding subunit only to the nucleus. Induction of enzymes involved in xenobiotic metabolism occurs through binding of the ligand-bound Ah receptor to xenobiotic responsive elements in the promoters of genes for these enzymes. This gene encodes a protein that forms a complex with the ligand-bound Ah receptor, and is required for receptor function. The encoded protein has also been identified as the beta subunit of a heterodimeric transcription factor, hypoxia-inducible factor 1 (HIF1). A t(1;12)(q21;p13) translocation, which results in a TEL-ARNT fusion protein, is associated with acute

myeloblastic leukemia. Three alternatively spliced variants encoding different isoforms have been described for this gene.

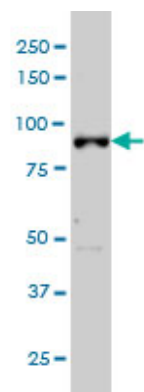
## References

Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891. Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086. MicroRNA-101 negatively regulates Ezh2 and its expression is modulated by androgen receptor and HIF-1alpha/HIF-1beta. Cao P, et al. Mol Cancer, 2010 May 17. PMID 20478051. A Large-scale genetic association study of esophageal adenocarcinoma risk. Liu CY, et al. Carcinogenesis, 2010 Jul. PMID 20453000. Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.

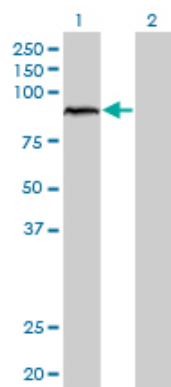
## Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.73 KDa) .



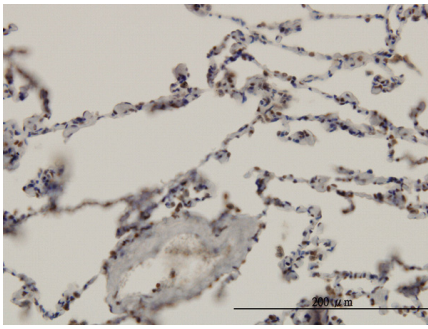
ARNT monoclonal antibody (M01), clone 3D10 Western Blot analysis of ARNT expression in Hela S3 NE ( (Cat # AT1199a )



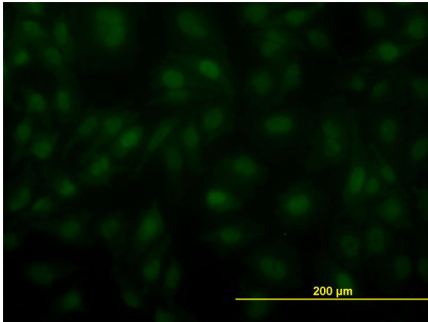
Western Blot analysis of ARNT expression in transfected 293T cell line by ARNT monoclonal antibody (M01), clone 3D10.

Lane 1: ARNT transfected lysate(86.6 KDa).  
Lane 2: Non-transfected lysate.

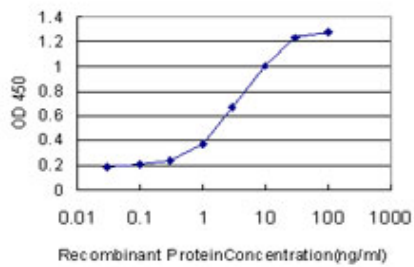
Immunoperoxidase of monoclonal antibody to ARNT on formalin-fixed paraffin-embedded human lung. [antibody



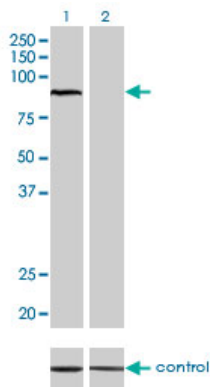
concentration 3 ug/ml]



Immunofluorescence of monoclonal antibody to ARNT on HeLa cell. [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged ARNT is approximately 0.03ng/ml as a capture antibody.



Western blot analysis of ARNT over-expressed 293 cell line, cotransfected with ARNT Validated Chimera RNAi (Cat # AT1199a )

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.