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Product datasheet for TA501147AM

HIF1 beta (ARNT) Mouse Monoclonal Antibody (Biotin conjugated) [Clone ID: OTI1A1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI1A1
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:50, IF 1:100, FLOW 1:100
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human ARNT (NP_001659) produced in HEK293T cell.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	0.5 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Biotin
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	86.5 kDa
Gene Name:	aryl hydrocarbon receptor nuclear translocator
Database Link:	NP_001659 Entrez Gene 11863 MouseEntrez Gene 25242 RatEntrez Gene 405 Human P27540

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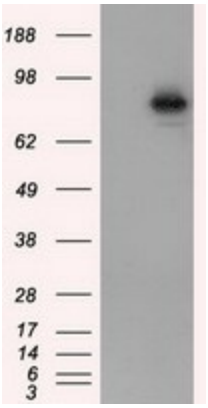
Background: The aryl hydrocarbon (Ah) receptor is involved in the induction of several enzymes that participate in xenobiotic metabolism. The ligand-free, cytosolic form of the Ah receptor is complexed to heat shock protein 90. Binding of ligand, which includes dioxin and polycyclic aromatic hydrocarbons, 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.

Synonyms: bHLHe2; HIF-1-beta; HIF-1beta; HIF1-beta; HIF1B; HIF1BETA; TANGO

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Pathways in cancer, Renal cell carcinoma

Product images:



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARNT (Cat# [RC216724], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ARNT(Cat# [TA501147]). Positive lysates [LY400636] (100ug) and [LC400636] (20ug) can be purchased separately from OriGene.

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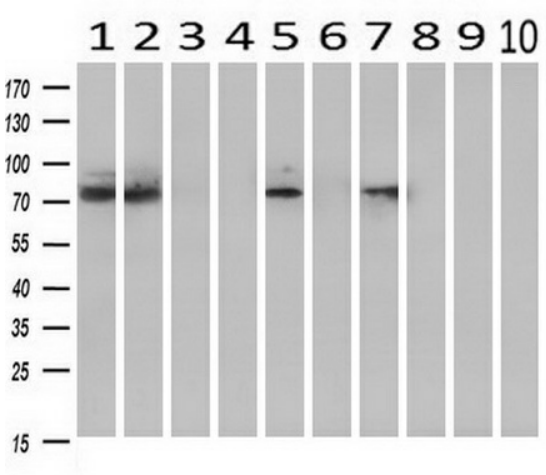
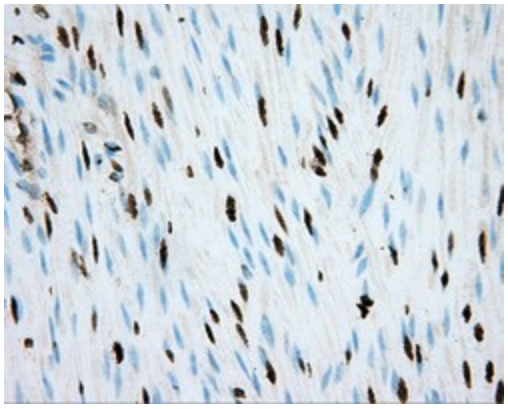
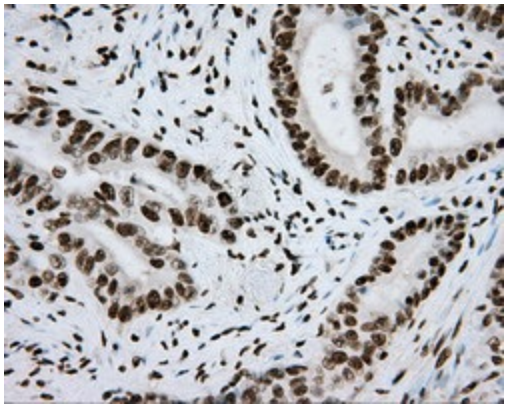


Western blot analysis of extracts (10ug) from 10 Human tissue by using anti-ARNT monoclonal antibody at 1:500 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon;10: spleen).



Immunohistochemical staining of paraffin-embedded Human colon tissue within the normal limits using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])

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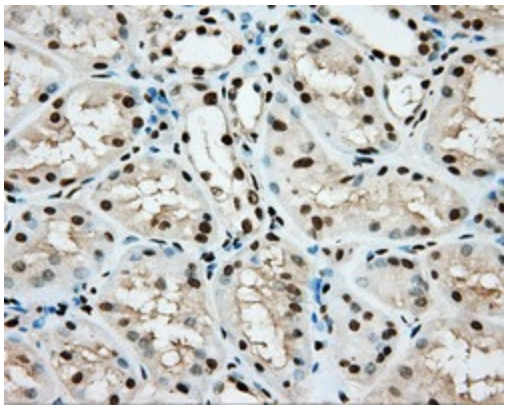
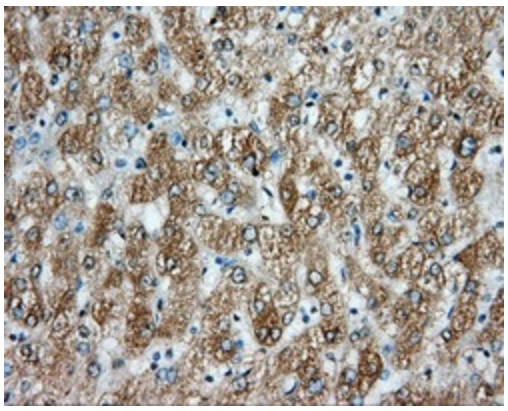
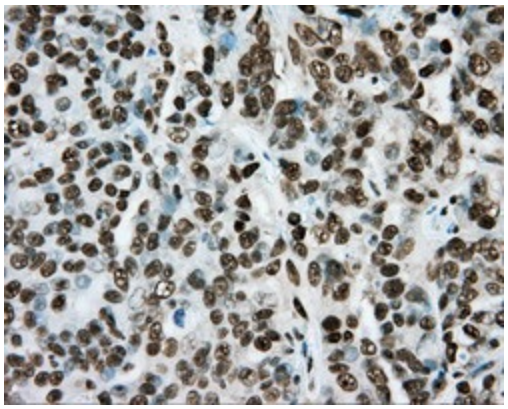


Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])



Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])

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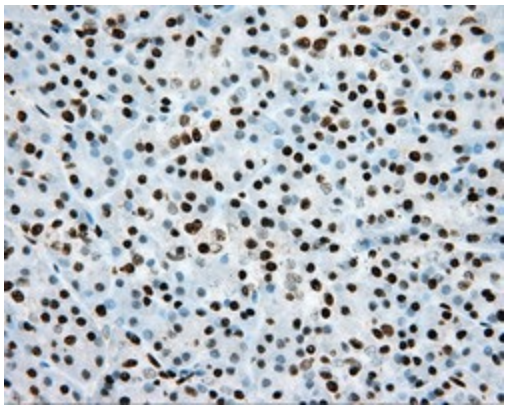
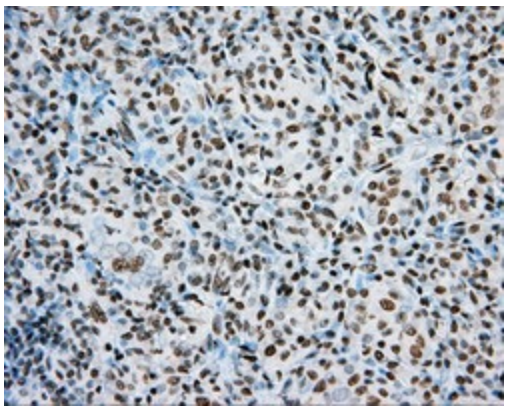
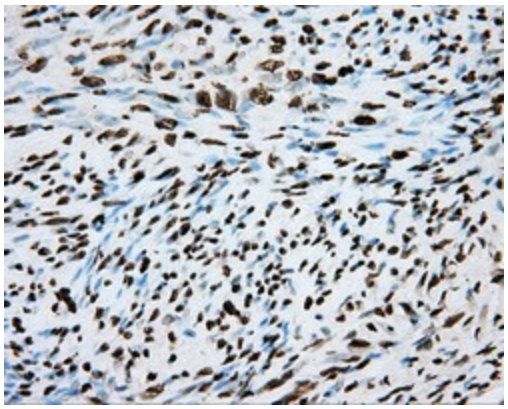


Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])



Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])



Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])

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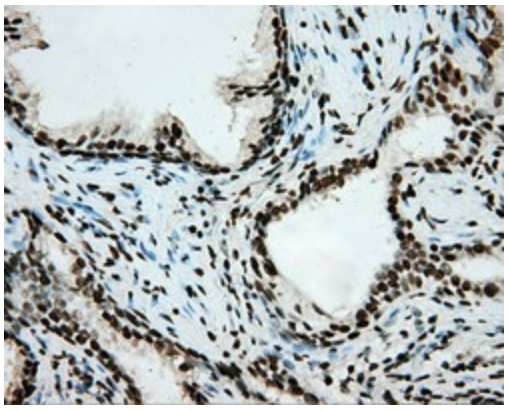
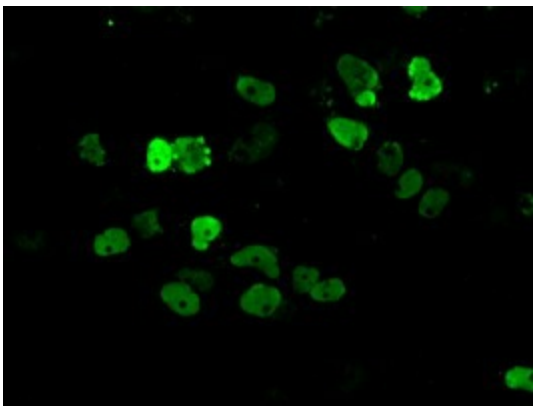


Immunohistochemical staining of paraffin-embedded Human prostate tissue within the normal limits using anti-ARNT mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA501147])



Anti-ARNT mouse monoclonal antibody ([TA501147]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY ARNT ([RC216724]).

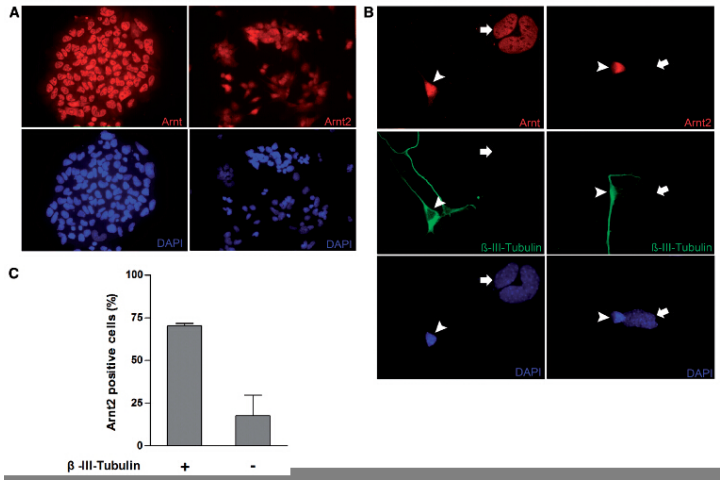


Figure from citation: Immunofluorescence of ARNT protein level by using anti-ARNT antibody in mouse neuronal cells. View Citation

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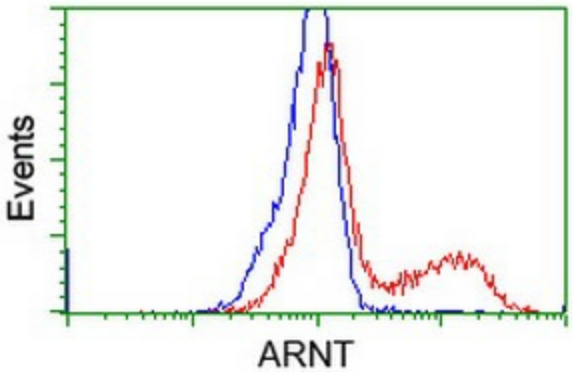
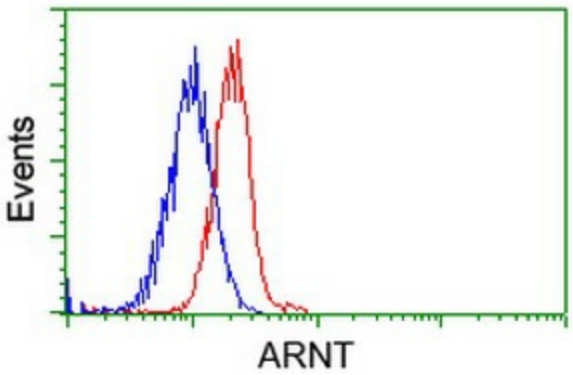


HEK293T cells transfected with either [RC216724] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-ARNT antibody ([TA501147]), and then analyzed by flow cytometry.



Flow cytometric Analysis of Jurkat cells, using anti-ARNT antibody ([TA501147]), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).

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