

## Product datasheet for **CF501147**

### HIF1 beta (ARNT) Mouse Monoclonal Antibody [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:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
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:	<a href="#">NP_001659</a> <a href="#">Entrez Gene 11863 Mouse</a> <a href="#">Entrez Gene 25242 Rat</a> <a href="#">Entrez Gene 405 Human</a> <a href="#">P27540</a>



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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:**

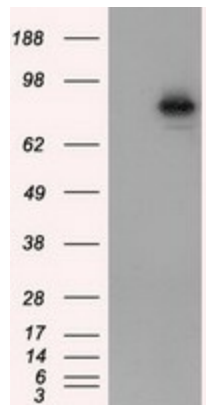
bHLHe2; HIF-1-beta; HIF-1beta; HIF1-beta; HIF1B; HIF1BETA; TANGO

**Protein Families:**

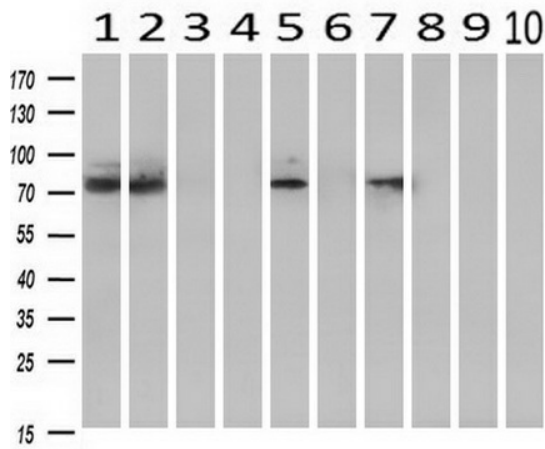
Druggable Genome, Transcription Factors

**Protein Pathways:**

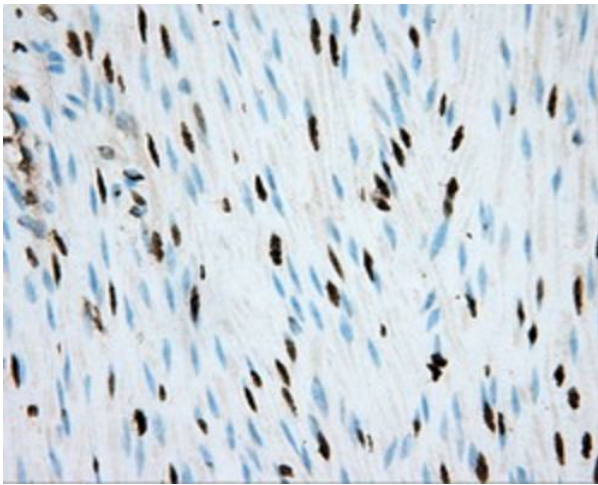
Pathways in cancer, Renal cell carcinoma

**Product images:**

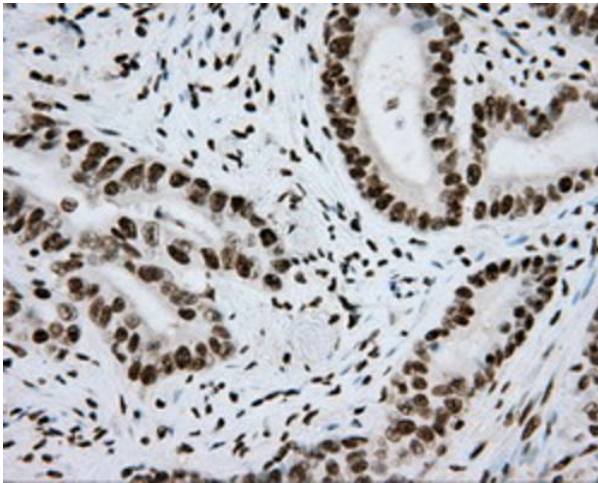
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARNT (Cat# [RC216724], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ARNT (Cat# [TA501147]). Positive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



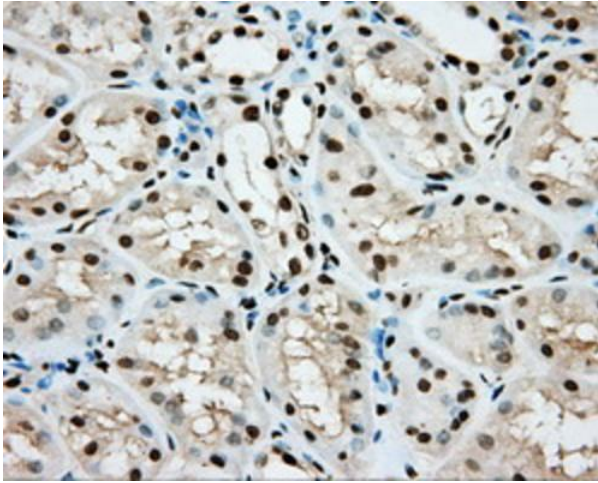
Western blot analysis of extracts (10ug) from 10 Human tissue by using anti-ARNT monoclonal antibody at 1:500 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon;10: spleen).



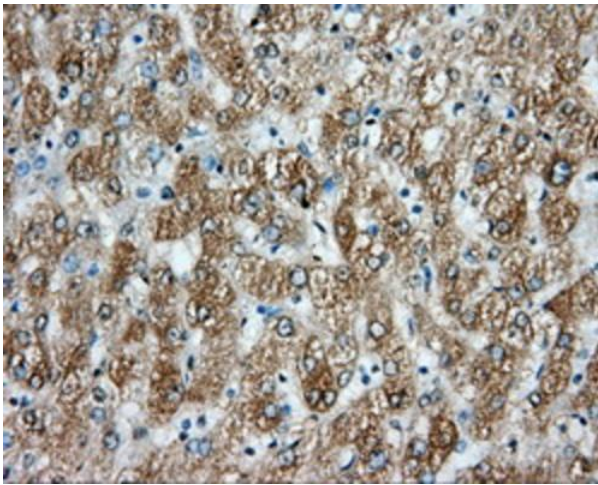
Immunohistochemical staining of paraffin-embedded Human colon tissue within the normal limits using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



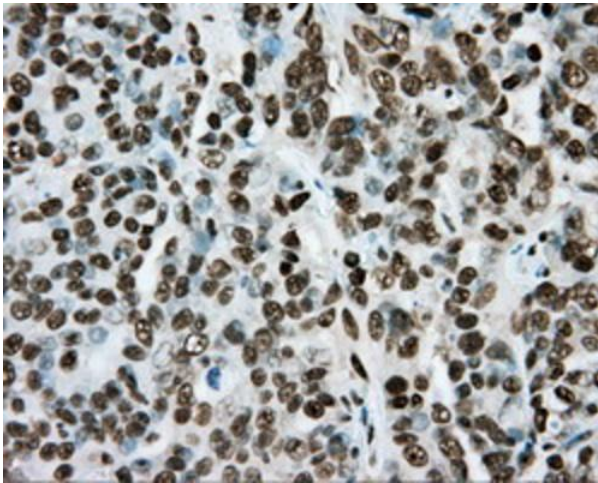
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

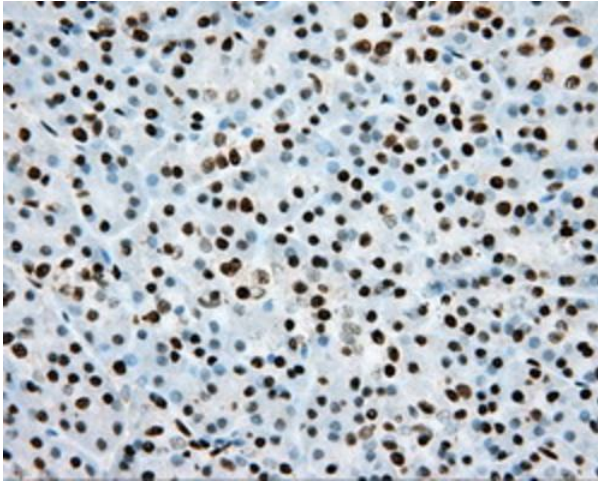


Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

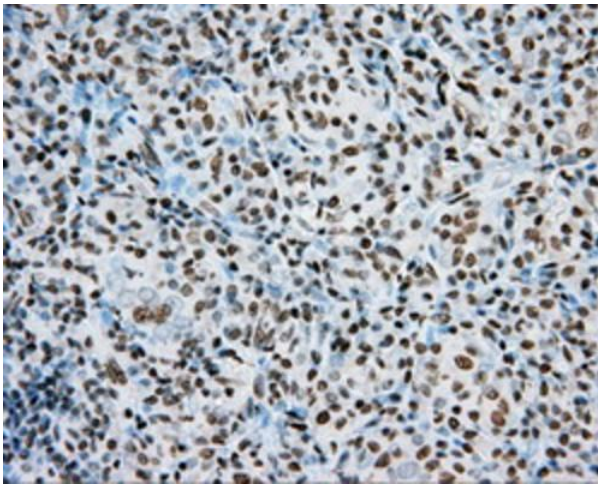


Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

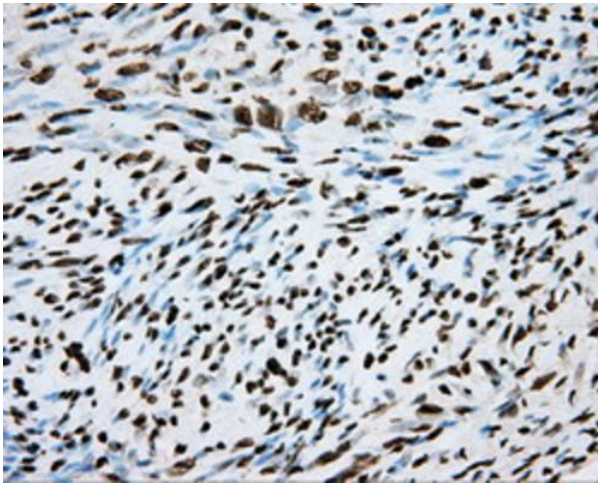




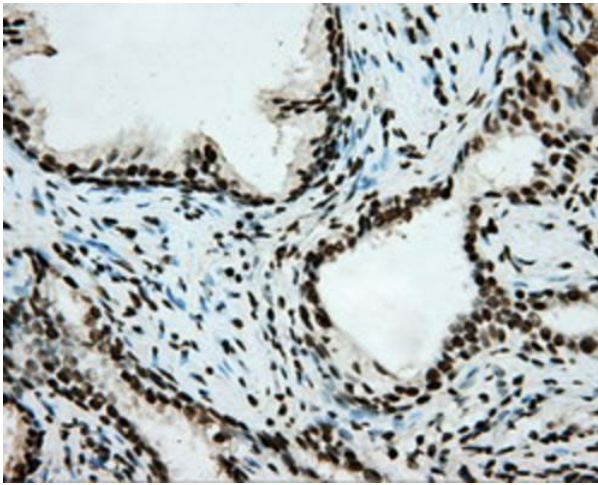
Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



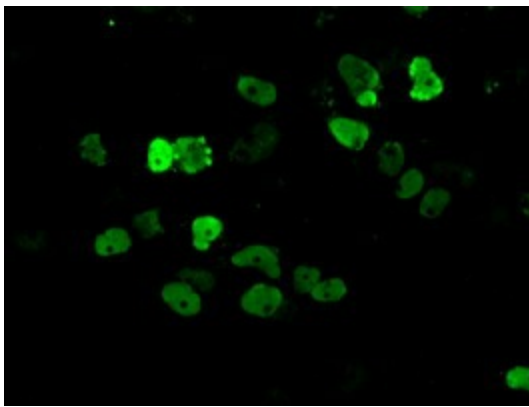
Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Human prostate tissue within the normal limits using anti-ARNT mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



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

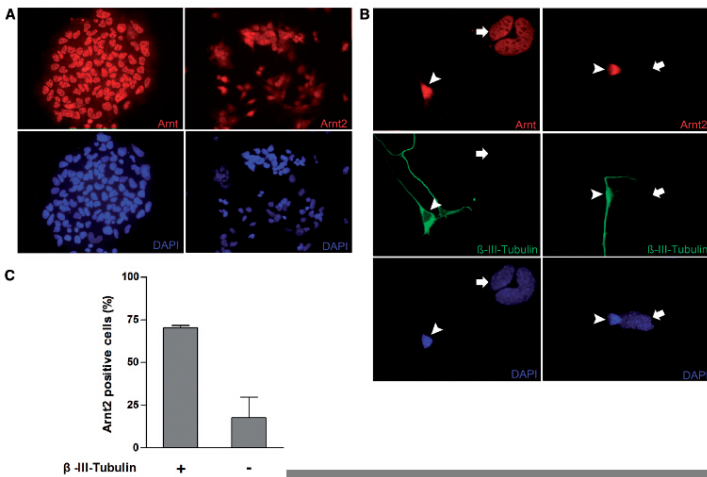
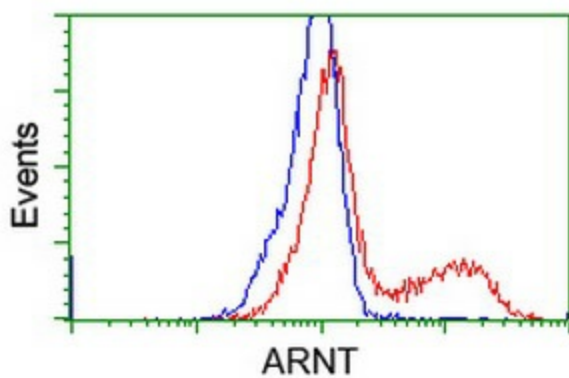
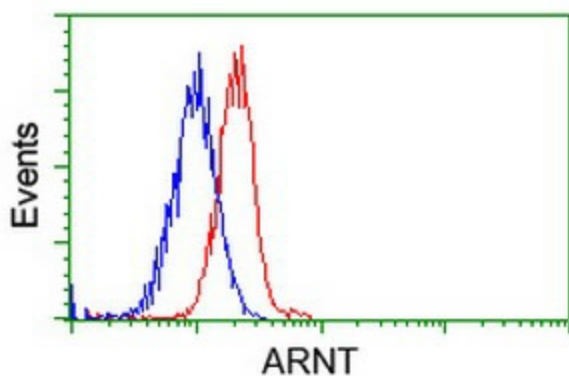


Figure from citation: Immunofluorescence of ARNT protein level by using anti-ARNT antibody in mouse neuronal cells. [View Citation](#)



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).