

## Product datasheet for **CF501149**

### **HIF1 beta (ARNT) Mouse Monoclonal Antibody [Clone ID: OTI1F4]**

#### **Product data:**

|                                |  |
|--------------------------------|--|
| <b>Product Type:</b>           | Primary Antibodies   |
| <b>Clone Name:</b>             | OTI1F4   |
| <b>Applications:</b>           | IF, IHC, WB  |
| <b>Recommended Dilution:</b>   | WB 1:2000, IHC 1:50, IF 1:100  |
| <b>Reactivity:</b>             | Human, Mouse, Rat  |
| <b>Host:</b>                   | Mouse  |
| <b>Isotype:</b>                | IgG1   |
| <b>Clonality:</b>              | Monoclonal   |
| <b>Immunogen:</b>              | Full length human recombinant protein of human ARNT (NP_001659) produced in HEK293T cell.  |
| <b>Formulation:</b>            | Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)  |
| <b>Reconstitution Method:</b>  | 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) |
| <b>Purification:</b>           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)  |
| <b>Conjugation:</b>            | Unconjugated   |
| <b>Storage:</b>                | Store at -20°C as received.  |
| <b>Stability:</b>              | Stable for 12 months from date of receipt.   |
| <b>Predicted Protein Size:</b> | 86.5 kDa   |
| <b>Gene Name:</b>              | aryl hydrocarbon receptor nuclear translocator   |
| <b>Database Link:</b>          | <a href="#">NP_001659</a><br><a href="#">Entrez Gene 11863 Mouse</a> <a href="#">Entrez Gene 25242 Rat</a> <a href="#">Entrez Gene 405 Human</a><br><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:**

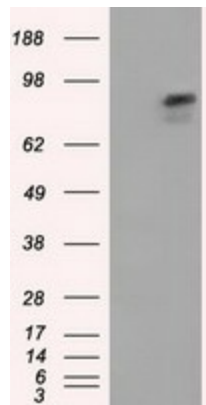
bHLHe2; HIF-1-beta; HIF-1beta; HIF1-beta; HIF1B; HIF1BETA; TANGO

**Protein Families:**

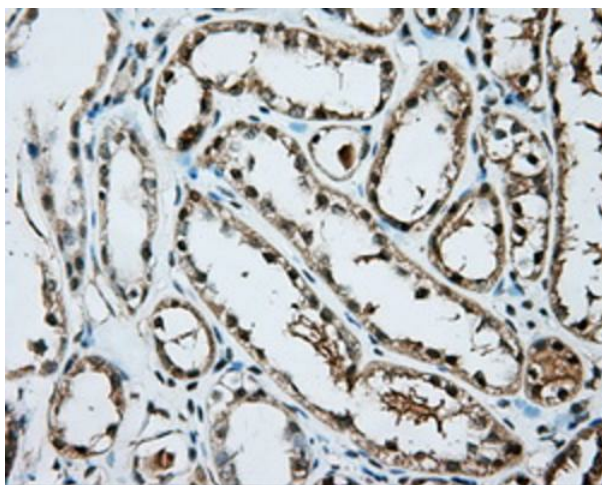
Druggable Genome, Transcription Factors

**Protein Pathways:**

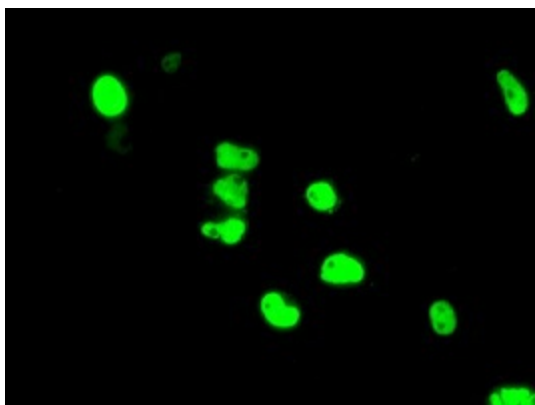
Pathways in cancer, Renal cell carcinoma

**Product images:**

HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY ARNT ([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. Positive lysates [LY400636] (100ug) and [LC400636] (20ug) can be purchased separately from OriGene.



Immunohistochemical staining of paraffin-embedded 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, [TA501149], Dilution 1:50)



Anti-ARNT mouse monoclonal antibody ([TA501149]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY ARNT ([RC216724]).