

## Product datasheet for **TA301443**

### HIF1 beta (ARNT) Mouse Monoclonal Antibody [Clone ID: H1beta234]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	H1beta234
Applications:	ChIP, ICC/IF, IHC, Immunoblotting, IP, WB
Recommended Dilution:	Western Blot: 1:500, Chromatin Immunoprecipitation (ChIP): 1:10-1:500, Gel Super Shift Assays, Immunocytochemistry/ Immunofluorescence, Chromatin Immunoprecipitation Sequencing, Immunohistochemistry: 1:100, Immunohistochemistry-Paraffin: 1:100, Immunoprecipitation, Immunoblotting: 1:100 - 1:2000
Reactivity:	Human, Bovine, Sheep, Mouse, Rat, Ferret
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	Fusion protein containing amino acids 496-789 of human HIF-1 beta.
Formulation:	PBS and 0.05% sodium azide
Concentration:	lot specific
Purification:	protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
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:**

Hypoxia contributes significantly to the pathophysiology of major categories of human disease, including myocardial and cerebral ischemia, cancer, pulmonary hypertension, congenital heart disease, and chronic obstructive pulmonary disease. HIF-1 is a nuclear protein involved in mammalian oxygen homeostasis. This occurs as a posttranslational modification by prolyl hydroxylation. HIF-1 is a heterodimer composed of HIF-1 alpha and HIF-1 beta subunits. Both subunits are constantly translated. However, under normoxic conditions, human HIF-1 alpha is hydroxylated at Pro402 or Pro564 by a set of HIF prolyl hydroxylases, is polyubiquitinated, and eventually degraded in proteosomes. Under hypoxic conditions, the lack of hydroxylation prevents HIF degradation and increases transcriptional activity. Therefore, the concentration of HIF-1 alpha increases in the cell. In contrast, HIF-1 beta remains stable under either condition. HIF-1 beta is a series of aryl hydrocarbon receptor nuclear translocator (ARNT) gene products.

**Synonyms:**

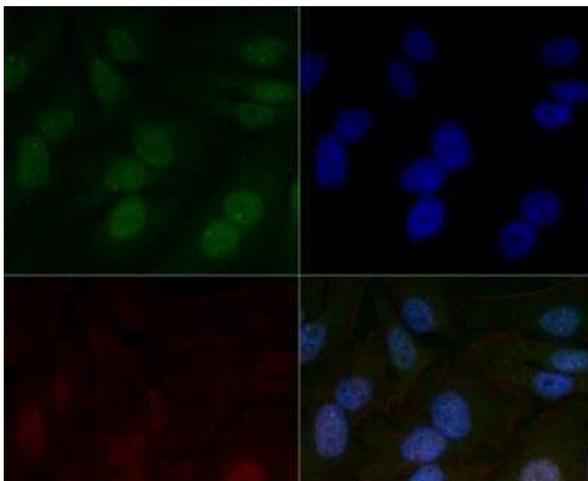
bHLHe2; HIF-1-beta; HIF-1beta; HIF1-beta; HIF1B; HIF1BETA; TANGO

**Protein Families:**

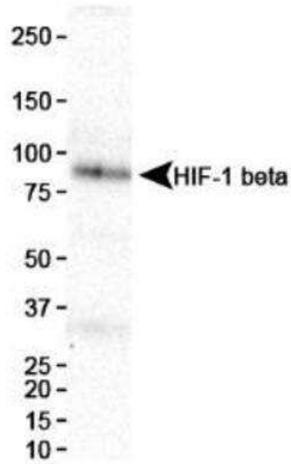
Druggable Genome, Transcription Factors

**Protein Pathways:**

Pathways in cancer, Renal cell carcinoma

**Product images:**

Immunocytochemistry/Immunofluorescence: ARNT/HIF-1 beta Antibody (H1beta234) TA301443 - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with ARNT/HIF-1 beta antibody (H1beta234) TA301443 at 5 ug/mL overnight at 4C and detected with an anti-mouse DyLight 488 (Green) at a 1:500 dilution. Actin was detected with Phalloidin 568 (Red) at a 1:200 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: ARNT/HIF-1 beta Antibody (H1beta234) TA301443 - Analysis of HIF-1 beta in HeLa nuclear extract using ARNT/HIF-1 beta antibody (H1beta234) TA301443. Theoretical molecular weight 86.6 kDa. Observed molecular weight ~85 kDa.



Immunohistochemistry: ARNT/HIF-1 beta Antibody (H1beta234) TA301443 - Staining of human glioblastoma multi-forme utilizing ARNT/HIF-1 beta antibody (H1beta234) TA301443.