

**Name: Mouse Monoclonal Antibody against HIF-1 Beta (H1beta234)****Catalog: TA301443****Product Data Sheet****Gene Name:** Homo sapiens aryl hydrocarbon receptor nuclear translocator (ARNT), transcript variant 1**Clone Name:** H1beta234**GeneBank accession:** NM\_001668**Isotype:** IgG1 kappa**Gene Synonym:** bHLHe2; HIF-1beta; HIF1B; HIF1BETA; TANGO**Reactivity:** human, bovine, sheep, mouse, rat, ferret**Immunogen:** Fusion protein containing amino acids 496-789 of human HIF-1 beta.**Components:**

- 100 ul Mouse Monoclonal Antibody against HIF-1 Beta (H1beta234) (TA301443)
- 1 vial of 20 µg myc-DDK tagged ARNT HEK293T over-expression lysate lyophilized in RIPA buffer (LY400636) (Reconstitute into 20 µl of 1x SDS sample buffer before loading)

**Concentration:** 1.4 mg/ml**Recommended application dilutions:**

WB (1:500), IHC

**Storage Condition:**

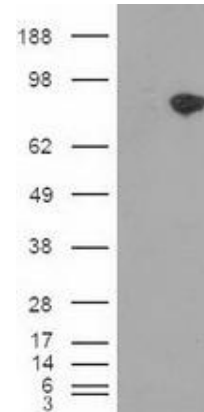
Shipped at 4C. Upon delivery store at -20C. Dilute in PBS (pH7.3) before use. Stable for 12 months from date of receipt. Avoid repeated freeze-thaws.

**Buffer:**

PBS and 0.05% sodium azide

**Purification:** protein G purified**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 proteasomes. 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.

**Validation Data:****Western Blot**

HEK293T cells were transfected with the pCMV6-ENTRY control or pCMV6-ENTRY ARNT (RC216724) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 µg per lane) were separated by SDS-PAGE and immunoblotted with anti-ARNT.

**IHC data**

Immunohistochemical staining of human glioblastoma multi-forme utilizing anti-HIF-1 Beta

***This product is to be used for laboratory only. Not for diagnostic or therapeutic use.***

**UK & Rest of World**

184 Milton Park, Abingdon  
OX14 4SE, Oxon, UK  
Tel: +44 (0) 1235 828 200  
Fax: +44 (0) 1235 820 482

**Switzerland**

Centro Nord-Sud 2E  
CH-6934 Bioggio-Lugano  
Tel: +41 (0) 91 604 55 22  
Fax: +41 (0) 91 605 17 85

**Deutschland**

Bockenheimer Landstr. 17/19  
60325 Frankfurt/Main  
Tel: +49 (0) 69 779099  
Fax: +49 (0) 69 13376880

**United States**

23591 El Toro Rd, Suite #167  
Lake Forest, CA 92630  
Tel: +1 800 987 0985  
Fax: +1 949 265 7703