

**ARG83448**  
**Rat EPAS1 / HIF-2 alpha ELISA Kit**

Package: 96 wells

Store at: 4°C

### Summary

Product Description	ARG83448 Rat EPAS1 / HIF-2 alpha ELISA Kit is an Enzyme Immunoassay kit for the quantification of Rat EPAS1 / HIF-2 alpha in Serum, plasma and cell culture supernatants., Cell Lysates, Tissue Homogenates
Tested Reactivity	Rat
Tested Application	ELISA
Target Name	EPAS1 / HIF-2 alpha
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	60 pg/ml
Sample Type	Serum, plasma and cell culture supernatants., Cell Lysates, Tissue Homogenates
Standard Range	125 - 8000 pg/ml
Sample Volume	100 µl
Alternate Names	Basic-helix-loop-helix-PAS protein MOP2; HIF2A; HIF-1-alpha-like factor; HIF2-alpha; PAS domain-containing protein 2; Endothelial PAS domain-containing protein 1; HIF-2-alpha; MOP2; Hypoxia-inducible factor 2-alpha; bHLHe73; Member of PAS protein 2; ECYT4; HLF; Class E basic helix-loop-helix protein 73; PASD2; EPAS-1

### Application Instructions

Assay Time	3.5 hours
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### Properties

Form	96 well
Storage instruction	Store the kit at 4°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Gene Symbol	EPAS1
Gene Full Name	endothelial PAS domain protein 1
Background	This gene encodes a transcription factor involved in the induction of genes regulated by oxygen, which is induced as oxygen levels fall. The encoded protein contains a basic-helix-loop-helix domain protein dimerization domain as well as a domain found in proteins in signal transduction pathways which respond to oxygen levels. Mutations in this gene are associated with erythrocytosis familial type 4. [provided by RefSeq, Nov 2009]
Function	Transcription factor involved in the induction of oxygen regulated genes. Heterodimerizes with ARNT;

heterodimer binds to core DNA sequence 5'-TACGTG-3' within the hypoxia response element (HRE) of target gene promoters (By similarity). Regulates the vascular endothelial growth factor (VEGF) expression and seems to be implicated in the development of blood vessels and the tubular system of lung. May also play a role in the formation of the endothelium that gives rise to the blood brain barrier. Potent activator of the Tie-2 tyrosine kinase expression. Activation requires recruitment of transcriptional coactivators such as CREBBP and probably EP300. Interaction with redox regulatory protein APEX seems to activate CTAD (By similarity). [UniProt]

#### PTM

In normoxia, is probably hydroxylated on Pro-405 and Pro-531 by EGLN1/PHD1, EGLN2/PHD2 and/or EGLN3/PHD3. The hydroxylated prolines promote interaction with VHL, initiating rapid ubiquitination and subsequent proteasomal degradation. Under hypoxia, proline hydroxylation is impaired and ubiquitination is attenuated, resulting in stabilization (By similarity).

In normoxia, is hydroxylated on Asn-847 by HIF1AN thus probably abrogating interaction with CREBBP and EP300 and preventing transcriptional activation.

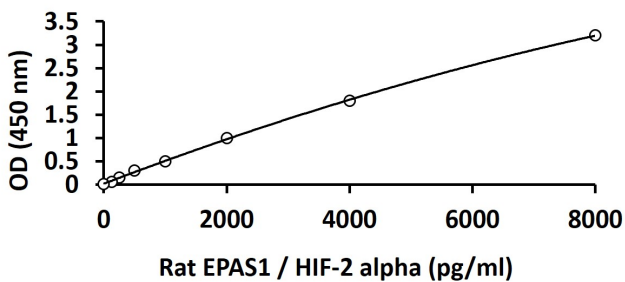
Phosphorylated on multiple sites in the CTAD.

The iron and 2-oxoglutarate dependent 3-hydroxylation of asparagine is (S) stereospecific within HIF CTAD domains. [UniProt]

#### Cellular Localization

Nucleus. Nucleus speckle. Note=Colocalizes with HIF3A in the nucleus and speckles. [UniProt]

## Images



ARG83448 Rat EPAS1 / HIF-2 alpha ELISA Kit standard curve image

ARG83448 Rat EPAS1 / HIF-2 alpha ELISA Kit results of a typical standard run with optical density reading at 450 nm.