

## Product datasheet for **AP20633PU-S**

### HIF-1 alpha (HIF1A) Rabbit Polyclonal Antibody

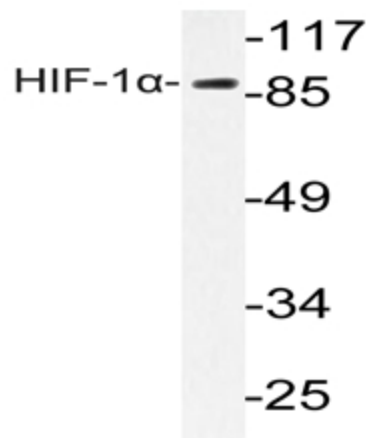
#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western Blot:</b> 1/500 -1/1000. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of HIF-1alpha protein. (region surrounding Lys377)
Formulation:	Phosphate Buffered Saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~90, 120 kDa
Gene Name:	hypoxia inducible factor 1 alpha subunit
Database Link:	<a href="#">Entrez Gene 15251 Mouse</a> <a href="#">Entrez Gene 29560 Rat</a> <a href="#">Entrez Gene 3091 Human</a> <a href="#">Q16665</a>

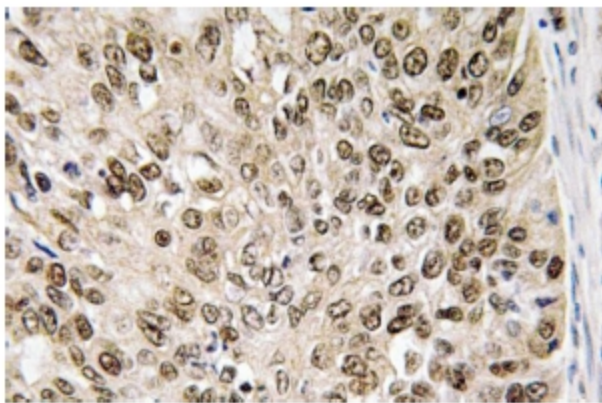


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- Background:** Cell growth and viability is compromised by oxygen deprivation (hypoxia). Hypoxia-inducible factors, including HIF-1 $\alpha$ , Arnt 1 (also designated HIF-1 $\beta$ ), EPAS-1 (also designated HIF-2 $\alpha$ ) and HIF-3 $\alpha$ , induce glycolysis, erythropoiesis and angiogenesis in order to restore oxygen homeostasis. Hypoxia-inducible factors are members of the Per-Arnt-Sim (PAS) domain transcription factor family. In response to hypoxia, HIF-1 $\alpha$  is upregulated and forms a heterodimer with Arnt 1 to form the HIF-1 complex. The HIF-1 complex recognizes and binds to the hypoxia responsive element (HRE) of hypoxia-inducible genes, thereby activating transcription. Hypoxia-inducible expression of some genes, such as Glut-1, p53, p21 or Bcl-2, is HIF-1 $\alpha$  dependent, whereas expression of others, such as p27, GADD 153 or HO-1, is HIF-1 $\alpha$  independent. EPAS-1 and HIF-3 $\alpha$  have also been shown to form heterodimeric complexes with Arnt 1 in response to hypoxia.
- Synonyms:** HIF-1 alpha, Hypoxia-inducible factor 1 alpha, ARNT-interacting protein, Member of PAS protein 1, Basic-helix-loop-helix-PAS protein MOP1, BHLHE78
- Protein Families:** Transcription Factors
- Protein Pathways:** mTOR signaling pathway, Pathways in cancer, Renal cell carcinoma
- Product images:**



Western blot analysis of HIF1 alpha antibody (Cat.-No [AP20633PU-N]) in extracts from LOVO cells.



Immunohistochemistry analyzes of HIF1 alpha antibody (Cat.-No [AP20633PU-N]) in paraffin-embedded human brain tissue.