Anti-HIF1 alpha Antibody

ER1802-41

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, FC
Molecular Wt:	Predicted band size: 92 kDa

Description: Cell growth and viability is compromised by oxygen deprivation (hypoxia). Hypoxia-inducible factors, including HIF-1α, HIF-1β (also designated Arnt 1), EPAS-1 (also designated HIF-2α) and HIF-3α, 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-1α 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-1α dependent, whereas expression of others, such as p27, GADD 153 or HO-1, is HIF-1α independent. EPAS-1 and HIF-3α have also been shown to form heterodimeric complexes with Arnt 1 in response to hypoxia.

Immunogen: Synthetic peptide within C-terminal human HIF1 alpha.

Subcellular location: Cytoplasm. Nucleus.

Database links: SwissProt: Q16665 Human | Q61221 Mouse

Recommended Dilutions:

WB	1:500-2000
IF-cell	1:100
FC	1μg/Test: 1:5000-10000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at -20℃ for one year. Avoid repeated freeze/thaw cycles.

Purity: Protein A affinity purified.

Images

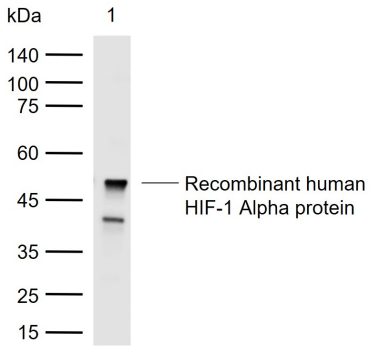

Fig1: 50 ng RHHIF-1 Alpha-Trx-His protein per lane probed with HIF-1 Alpha polyclonal antibody respectively, unconjugated (ER1802-41) at 1:1000 dilution and 4℃ overnight incubation. Followed by corresponding conjugated secondary antibody incubation at r.t. for 60 min.

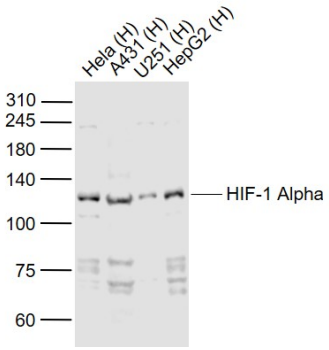

Fig2: 25 ug total protein per lane of various lysates (see on figure) probed with HIF-1 Alpha polyclonal antibody, unconjugated (ER1802-41) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.

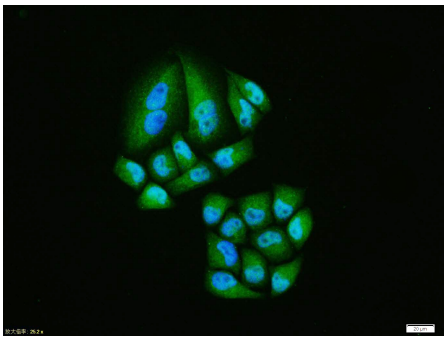

Fig3: Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (HIF-1 Alpha) polyclonal Antibody, Unconjugated (ER1802-41) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

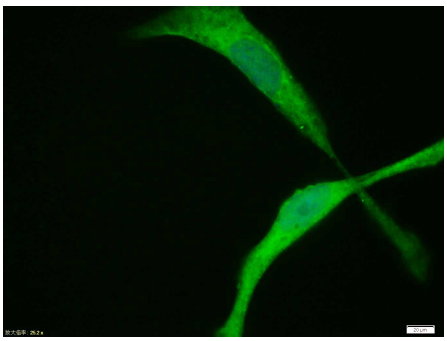

Fig4: Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (HIF-1 Alpha) polyclonal Antibody, Unconjugated (ER1802-41) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

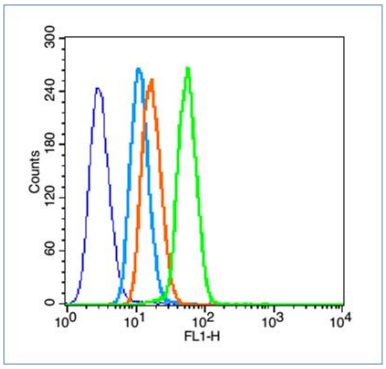

Fig5: Blank control (blue line): Hela (blue).
Primary Antibody (green line): Rabbit Anti- HIF-1 Alpha antibody (ER1802-41)
Dilution: 1μg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC
Dilution: 1μg /test.
Protocol
The cells were fixed with 80% methanol (5 min at -20℃) and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Background References

1. Bhattacharya S et al. Functional role of p35srj, a novel p300/CBP binding protein, during transactivation by HIF-1. Genes Dev 13:64-75 (1999).
2. Masson N et al. Independent function of two destruction domains in hypoxia-inducible factor-alpha chains activated by prolyl hydroxylation. EMBO J 20:5197-5206 (2001).