

Product Information



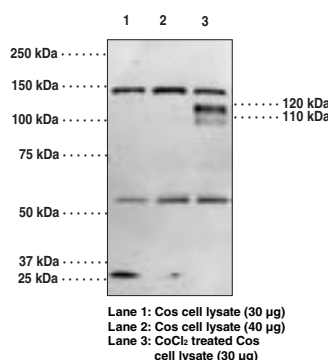
HIF-1 α (C-Term) Polyclonal Antibody

Item No. 10006421 • Lot No. XXXX

- Synonym:** Hypoxia Inducible Factor-1 α
- Supplied as:** *lot specific* μ g peptide affinity-purified IgG in *lot specific* μ l TBS, pH 7.4, containing 50% glycerol, 0.5 mg/ml BSA, and 0.02% sodium azide
- Host:** Rabbit
- Antigen:** HIF-1 α C-terminal amino acids 809-826 (human numbering; SRNLLQGEELLRALDQVN). The antigen is identical to HIF-1 α of most mammalian species as well as chicken, frog, and zebrafish. Reactivity with other fish species is expected.
- Cross-reactivity:** (+) Human, mouse, and simian HIF-1 α ; other species not tested.
- Stability:** \geq 1 year at -20 $^{\circ}$ C
- Applications:** For detection of HIF-1 α by western blot (WB)*. Recommended starting dilution for WB is 5 μ g/ml for 1 hour incubation at room temperature when probing total cell lysates. Overnight incubations at 4 $^{\circ}$ C with lower IgG concentrations can also produce optimal results. Tests using this antibody for immunocytochemistry and immunoprecipitation were negative. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

*6-8 % acrylamide gels (SDS-PAGE) are recommended for loading gels with HIF-1 α containing samples to allow maximal separation of high molecular weight proteins with similar M_r .

Hypoxia inducible factor-1 α (HIF-1 α) is a transcription factor that accumulates under low-oxygen conditions.^{1,2} Following hypoxic stimulus and cytoplasmic accumulation, HIF-1 α migrates to the nucleus where, with other transcription factors, it drives the production of stress-adaptive proteins. This response is essential for maintenance of normal oxidative physiology, however overexpression in cancer cells promotes tumor survival.²⁻⁶ HIF-1 α is an endothelial PAS domain protein 1 (EPAS-1) family member with phosphorylation dependent activities. HIF-1 α will migrate to the apparent molecular weights of 110-125 kDa (by SDS-PAGE) depending on phosphorylation status.^{7,8} This vial contains 500 μ g of peptide-affinity purified IgG directed against the C-terminus of HIF-1 α . The antibody should be stored at 4 $^{\circ}$ C as supplied. Positive controls include human, primate, and mouse cell cultures grown in hypoxic conditions or treated with prolyl hydroxylase inhibitors such as DMOG (Item No. 71210), 2,4-DPD (Item No. 71200), desferrioxamine, or cobalt chloride.^{6,9}



References

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