

HIF-3 α (H-170): sc-28707

BACKGROUND

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

CHROMOSOMAL LOCATION

Genetic locus: HIF3A (human) mapping to 19q13.32; Hif3a (mouse) mapping to 7 A2.

SOURCE

HIF-3 α (H-170) is a rabbit polyclonal antibody raised against amino acids 498-667 mapping at the C-terminus of HIF-3 α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28707 X, 200 μ g/0.1 ml.

STORAGE

Store at 4 $^{\circ}$ C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

HIF-3 α (H-170) is recommended for detection of HIF-3 α of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HIF-3 α (H-170) is also recommended for detection of HIF-3 α in additional species, including equine.

Suitable for use as control antibody for HIF-3 α siRNA (h): sc-38167, HIF-3 α siRNA (m): sc-38168, HIF-3 α shRNA Plasmid (h): sc-38167-SH, HIF-3 α shRNA Plasmid (m): sc-38168-SH, HIF-3 α shRNA (h) Lentiviral Particles: sc-38167-V and HIF-3 α shRNA (m) Lentiviral Particles: sc-38168-V.

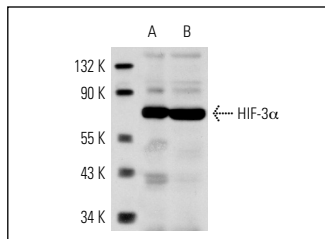
HIF-3 α (H-170) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HIF-3 α : 73 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz MarkerTM compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz MarkerTM Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruzTM Mounting Medium: sc-24941.

DATA



HIF-3 α (H-170): sc-28707. Western blot analysis of HIF-3 α expression in mouse liver (A) and rat liver (B) tissue extracts.

SELECT PRODUCT CITATIONS

1. Fujino, T., et al. 2009. Hypoxia downregulates farnesoid X receptor via a hypoxia-inducible factor-independent but p38 mitogen-activated protein kinase-dependent pathway. FEBS J. 276: 1319-1332.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **HIF-3 α (E-8): sc-390933** or **HIF-3 α (D-7): sc-390769**, our highly recommended monoclonal alternatives to HIF-3 α (H-170).