

## EPAS-1 (m): 293T Lysate: sc-120061

### BACKGROUND

Cell growth and viability is compromised by oxygen deprivation (hypoxia). Hypoxia-inducible factors, including HIF-1 $\alpha$ , HIF-1 $\beta$  (also designated Arnt 1), 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.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: *Epas1* (mouse) mapping to 17 E4.

### PRODUCT

EPAS-1 (m): 293T Lysate represents a lysate of mouse EPAS-1 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

### STORAGE

Store at -20 $^{\circ}$  C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

### APPLICATIONS

EPAS-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive EPAS-1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

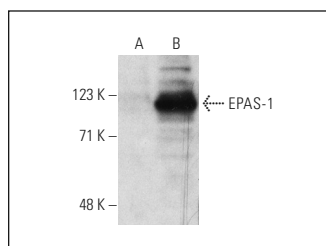
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

EPAS-1 (190b): sc-13596 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse EPAS-1 expression in EPAS-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

### RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

### DATA



EPAS-1 (190b): sc-13596. Western blot analysis of EPAS-1 expression in untreated (A) and CoCl<sub>2</sub>-induced (B) HeLa whole cell lysate.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.