

# EPAS-1 (K-20): sc-32146

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: EPAS1 (human) mapping to 2p21; Epas1 (mouse) mapping to 17 E4.

## SOURCE

EPAS-1 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EPAS-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32146 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

EPAS-1 (K-20) is recommended for detection of EPAS-1 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  $\mu$ g per 100-500  $\mu$ 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).

EPAS-1 (K-20) is also recommended for detection of EPAS-1 in additional species, including canine.

Suitable for use as control antibody for EPAS-1 siRNA (h): sc-35316, EPAS-1 siRNA (m): sc-35317, EPAS-1 shRNA Plasmid (h): sc-35316-SH, EPAS-1 shRNA Plasmid (m): sc-35317-SH, EPAS-1 shRNA (h) Lentiviral Particles: sc-35316-V and EPAS-1 shRNA (m) Lentiviral Particles: sc-35317-V.

EPAS-1 (K-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

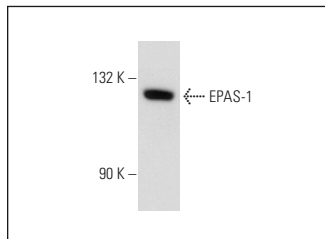
Molecular Weight of EPAS-1: 115 kDa.

Positive Controls: H4 cell lysate: sc-2408 or HeLa + CoCl<sub>2</sub> cell lysate: sc-24679.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



EPAS-1 (K-20): sc-32146. Western blot analysis of EPAS-1 expression in H4 whole cell lysate.

## STORAGE

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

## 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) or our catalog for detailed protocols and support products.



Try **EPAS-1 (190b): sc-13596** or **EPAS-1 (A-5): sc-46691**, our highly recommended monoclonal alternatives to EPAS-1 (K-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **EPAS-1 (190b): sc-13596**.