

GSTK1 (E-4): sc-515580

BACKGROUND

Members of the glutathione S-transferase (GST) family of proteins function in the detoxification of xenobiotics to protect cells against toxicant-induced damage. There are eight families of GST proteins, namely α , ζ , θ , κ , μ , π , σ and ω , each of which are composed of proteins that have a variety of functions throughout the cell. GSTK1 (glutathione S-transferase κ 1), also known as glutathione S-transferase subunit 13 (GST 13-13) or GSTK1-1, is a 226 amino acid ubiquitously expressed protein belonging to the κ class of the GST superfamily that functions in cellular detoxification. Localizing to peroxisome, GSTK1 exists as a homodimer that catalyzes the conjugation of glutathione to a number of hydrophobic substrates leading to their removal from the cell.

CHROMOSOMAL LOCATION

Genetic locus: GSTK1 (human) mapping to 7q34.

SOURCE

GSTK1 (E-4) is a mouse monoclonal antibody raised against amino acids 1-226 representing full length GSTK1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GSTK1 (E-4) is available conjugated to agarose (sc-515580 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515580 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515580 PE), fluorescein (sc-515580 FITC), Alexa Fluor® 488 (sc-515580 AF488), Alexa Fluor® 546 (sc-515580 AF546), Alexa Fluor® 594 (sc-515580 AF594) or Alexa Fluor® 647 (sc-515580 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515580 AF680) or Alexa Fluor® 790 (sc-515580 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

GSTK1 (E-4) is recommended for detection of GSTK1 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for GSTK1 siRNA (h): sc-89816, GSTK1 shRNA Plasmid (h): sc-89816-SH and GSTK1 shRNA (h) Lentiviral Particles: sc-89816-V.

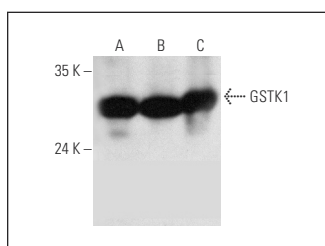
Molecular Weight of GSTK1: 30 kDa.

Positive Controls: HEK293T whole cell lysate: sc-45137, HeLa whole cell lysate: sc-2200 or human heart extract: sc-363763.

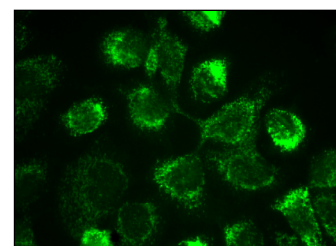
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GSTK1 (E-4): sc-515580. Western blot analysis of GSTK1 expression in HEK293T (A) and HeLa (B) whole cell lysates and human heart tissue extract (C).



GSTK1 (E-4): sc-515580. Immunofluorescence staining of formalin-fixed A-431 cells showing mitochondrial and peroxisome localization.

SELECT PRODUCT CITATIONS

- Ahwach, S.M., et al. 2015. The glutathione mimic ebselen inhibits oxidative stress but not endoplasmic reticulum stress in endothelial cells. *Life Sci.* 134: 9-15.
- Wang, W., et al. 2017. TRIM37, a novel E3 ligase for PEX5-mediated peroxisomal matrix protein import. *J. Cell Biol.* 216: 2843.
- Marcassa, E., et al. 2018. Dual role of USP30 in controlling basal pexophagy and mitophagy. *EMBO Rep.* 19: e45595.

STORAGE

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

PROTOCOLS

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