

# Selenoprotein K (H-48): sc-98773

## BACKGROUND

Selenoprotein K (SELK), also known as HSPC030, is a 94 amino acid that belongs to the selenoprotein family which contains the rare twenty-first amino acid, selenocysteine (sec) that is used in ribosome-mediated protein synthesis. The 3' UTR of selenoprotein genes have a common stem-loop structure known as the sec insertion sequence (SECIS), which is necessary for the recognition of UGA as a sec codon rather than as a stop signal. Unlike the other 20 amino acids in protein, sec is biosynthesized from its tRNA. Widely expressed, Selenoprotein K localizes to endoplasmic reticulum and is found at high levels in heart, where it may function as an antioxidant. Overexpression of Selenoprotein K attenuates intracellular reactive oxygen species level and guards cardiomyocytes from oxidative stress-induced toxicity.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SELK (human) mapping to 3p21.1; Selk (mouse) mapping to 14 B.

## SOURCE

Selenoprotein K (H-48) is a rabbit polyclonal antibody raised against amino acids 37-84 mapping within an internal region of Selenoprotein K of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Selenoprotein K (H-48) is recommended for detection of Selenoprotein K of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Selenoprotein K (H-48) is also recommended for detection of Selenoprotein K in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Selenoprotein K siRNA (h): sc-78353, Selenoprotein K siRNA (m): sc-153326, Selenoprotein K shRNA Plasmid (h): sc-78353-SH, Selenoprotein K shRNA Plasmid (m): sc-153326-SH, Selenoprotein K shRNA (h) Lentiviral Particles: sc-78353-V and Selenoprotein K shRNA (m) Lentiviral Particles: sc-153326-V.

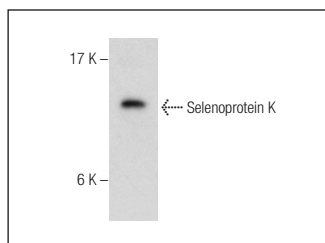
Molecular Weight of Selenoprotein K: 11 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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 Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 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 UltraCruz™ Mounting Medium: sc-24941.

## DATA



Selenoprotein K (H-48): sc-98773. Western blot analysis of Selenoprotein K expression in Jurkat 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.