

# Rieske FeS (5A5): sc-53634

## BACKGROUND

Cytochrome c is a well characterized, mobile electron transport protein that is essential to energy conversion in all aerobic organisms. Cytochrome b associates with cytochrome c subunit 1 and the Rieske protein to form complex III (also designated cytochrome bc1 complex), which is involved in cellular respiration. Ubiquinol cytochrome c reductase (UQCRC1), also referred to as Rieske iron-sulfur protein (Rieske FeS), represents an important subunit of complex III of the mitochondrial respiratory chain. This complex transfers electrons from ubiquinol to cytochrome c. The gene encoding for Rieske FeS may be involved in development of more aggressive phenotype of breast cancer.

## REFERENCES

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- Sait, S.N., et al. 2002. Double minute chromosomes in acute myeloid leukemia and myelodysplastic syndrome: identification of new amplification regions by fluorescence *in situ* hybridization and spectral karyotyping. *Genes Chromosomes Cancer* 34: 42-47.
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- Kaneko, S.J., et al. 2003. CA125 and UQCRC1 FISH studies of ovarian carcinoma. *Gynecol. Oncol.* 90: 29-36.
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## CHROMOSOMAL LOCATION

Genetic locus: UQCRC1 (human) mapping to 19q12; Uqcrf1 (mouse) mapping to 13 A3.2.

## SOURCE

Rieske FeS (5A5) is a mouse monoclonal antibody raised against recombinant Rieske FeS of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

Rieske FeS (5A5) is recommended for detection of Rieske FeS 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Rieske FeS siRNA (h): sc-72148, Rieske FeS siRNA (m): sc-72149, Rieske FeS shRNA Plasmid (h): sc-72148-SH, Rieske FeS shRNA Plasmid (m): sc-72149-SH, Rieske FeS shRNA (h) Lentiviral Particles: sc-72148-V and Rieske FeS shRNA (m) Lentiviral Particles: sc-72149-V.

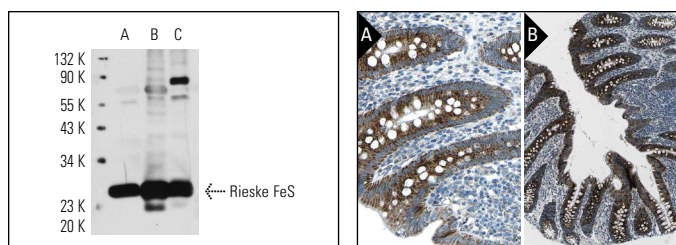
Molecular Weight of Rieske FeS: 30 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, mouse heart extract: sc-2254 or mouse brain extract: sc-2253.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

## DATA



Rieske FeS (5A5): sc-53634. Western blot analysis of Rieske FeS expression in human heart (A) mouse heart (B) and mouse brain (C) tissue extracts.

Rieske FeS (5A5): sc-53634. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of glandular cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## STORAGE

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