

ENSA (T-14): sc-161563



The Power to Question

BACKGROUND

ATP-dependent potassium K(ATP) channels regulate the polarity of the cell membrane, which affects cell metabolism and Insulin secretion. When ATP levels rise in response to an increased rate of glucose metabolism, the K(ATP) channels close, which stimulates the cells to secrete Insulin. K(ATP) channels are composed of two structurally unrelated subunits; a Kir6.0 subfamily component and a sulfonylurea receptor (SUR) component. ENSA (α -endosulfine), also known as ARPP-19e, is a 121 amino acid endogenous ligand for SUR. ENSA inhibits the binding of sulfonylurea to the SUR component of the K(ATP) channel, thereby reducing channel activity and stimulating the secretion of Insulin. ENSA is localized to the cytoplasm and widely expressed in tissues, with high expression in brain and muscle and low expression in pancreas. ENSA is phosphorylated by PKA and exists as two isoforms, designated α and β , produced by alternative splicing.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ENSA (human) mapping to 1q21.3; Ensa (mouse) mapping to 3 F2.1.

SOURCE

ENSA (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ENSA of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-161563 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ENSA (T-14) is recommended for detection of ENSA of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ENSA (T-14) is also recommended for detection of ENSA in additional species, including equine and canine.

Suitable for use as control antibody for ENSA siRNA (h): sc-78564, ENSA siRNA (m): sc-144657, ENSA shRNA Plasmid (h): sc-78564-SH, ENSA shRNA Plasmid (m): sc-144657-SH, ENSA shRNA (h) Lentiviral Particles: sc-78564-V and ENSA shRNA (m) Lentiviral Particles: sc-144657-V.

Molecular Weight of ENSA: 13 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.



Try **ENSA (L7Q): sc-81883**, our highly recommended monoclonal alternative to ENSA (T-14).