SANTA CRUZ BIOTECHNOLOGY, INC.

Ras GAP (171-448): sc-4018

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The Power to Question

BACKGROUND

The mammalian c-H-, c-K- and N-Ras proto-oncogenes encode ubiquitously expressed 21 kDa proteins. p21Ras can exist in either a physiologically quiescent GDP-binding state or a GTP-binding signal-emitting state. Oncogenic p21Ras proteins are trapped in the excited signal-emitting state because the mechanism normally employed to delimit their excitation period, hydrolysis of their bound GTP to GDP, is impaired as a result of specific mutations. Interaction of p21Ras with GTPase activating protein (GAP) can increase hydrolysis of p21Ras-bound GTP by as much as 1000-fold. The product of the neurofibromatosis type 1 gene (NF1) has also been shown to exhibit p21Ras GAP activity and proteins that stimulate the GTPase activity of three other low molecular weight GTPases, including Rho, Rab 3A and Rap 1, have also been described.

REFERENCES

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SOURCE

Ras GAP (171-448) is expressed in *E. coli* as a 57 kDa tagged fusion protein corresponding to amino acids 171-448 of the Ras GAP protein of human origin.

STORAGE

Store Ras GAP (171-448): sc-4018 at -20° C and store Ras GAP (171-448) AC: sc-4018 AC at 4° C. Stable for one year from the date of shipment.

RESEARCH USE

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

PRODUCT

Ras GAP (171-448) is purified from bacterial lysates (>98%) by glutathione agarose chromatography and supplied as 50 µg purified protein in PBS containing 5 mM DTT and 50% glycerol.

Also available in agarose conjugate format; 100 µg purified Ras GAP (171-448) protein conjugated to 0.1 ml agarose in PBS containing 0.1% azide, 0.1% BSA and 10% glycerol: Ras GAP (171-448) AC: sc-4018 AC.

APPLICATIONS

Ras GAP (171-448) is recommended for the enrichment of Ras GAP associated proteins when used in combination with glutathione agarose (sc-2009).

It is also suitable as a Western blotting control for sc-425.