SANTA CRUZ BIOTECHNOLOGY, INC.

A cyclase V (1019): sc-4123

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adenylyl cyclases function to convert ATP to cyclic AMP in response to activation by a variety of hormones, neurotransmitters and other regulatory molecules. Cyclic AMP, in turn, activates several other target molecules (primarily cyclic AMP-dependent protein kinases) to control a broad range of diverse phenomena such as metabolism, gene transcription and memory. Classically, adenylyl cyclases respond to receptor-initiated signals, mediated by the G_s and G_i heterotrimeric G proteins. The binding of an agonist to a G_s-coupled receptor (i.e. a β-adrenergic receptor) catalyzes the exchange of GDP (bound to $G_{\alpha s}$) for GTP, dissociation of GTP-$G_{\alpha s}$ from $G_{\beta\gamma}$ and $G_{\alpha s}$-mediated activation of adenylyl cyclase. At least nine distinct isoforms of adenylyl cyclases have been cloned and expressed. In addition, numerous partial cDNA clones have been described, indicating that the total number of adenylyl cyclases may be even larger.

REFERENCES

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SOURCE

A cyclase V (1019) is expressed in *E. coli* as a 33 kDa tagged fusion protein corresponding to amino acids 1019-1051 of A cyclase V of rat origin.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

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

PRODUCT

A cyclase V (1019) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 50 µg purified protein in PBS containing 5mM DTT and 50% glycerol.

Also available as A cyclase V (1019): sc-4123 WB for use as a Western blotting control; supplied as 10 µg protein in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

A cyclase V (1019): sc-4123 is provided as a purified protein for use in protein binding studies.

A cyclase V (1019): sc-4123 WB is suitable as a Western blotting control for sc-1701.