

A cyclase V (N-20): sc-74300

BACKGROUND

Adenylyl cyclases (A cyclases) function to convert ATP to cyclic AMP (cAMP) in response to activation by a variety of hormones, neurotransmitters and other regulatory molecules. cAMP, in turn, activates several other target molecules to control a broad range of diverse phenomena, including metabolism, gene transcription and memory. A cyclases respond to receptor-initiated signals, mediated by a variety of G_s and G_i heterotrimeric G proteins (such as G_{α_s}). The binding of an agonist to a G_{α_s} -coupled receptor catalyzes the exchange of GDP (bound to G_{α_s}) for GTP, the dissociation of GTP- G_{α_s} from $G_{\beta\gamma}$, and the subsequent G_{α_s} -mediated activation of A cyclases. A cyclase V, also known as ADCY5, is a 1,261 amino acid Adenylyl cyclase that localizes to cellular membranes and contains two guanylate cyclase domains. Similar to other A cyclase proteins, A cyclase V uses magnesium as a cofactor to catalyze the conversion of ATP to cAMP.

CHROMOSOMAL LOCATION

Genetic locus: ADCY5 (human) mapping to 3q21.1; Adcy5 (mouse) mapping to 16 B3.

SOURCE

A cyclase V (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of A cyclase V of human origin.

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-74300 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

A cyclase V (N-20) is recommended for detection of A cyclase V 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).

Suitable for use as control antibody for A cyclase V siRNA (h): sc-40319, A cyclase V siRNA (m): sc-40320, A cyclase V shRNA Plasmid (h): sc-40319-SH, A cyclase V shRNA Plasmid (m): sc-40320-SH, A cyclase V shRNA (h) Lentiviral Particles: sc-40319-V and A cyclase V shRNA (m) Lentiviral Particles: sc-40320-V.

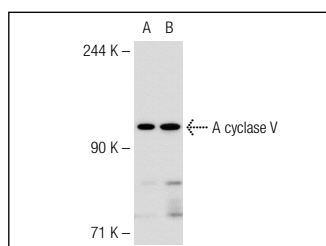
Molecular Weight of A cyclase V: 132 kDa.

Positive Controls: A cyclase V (h): 293T Lysate: sc-171171.

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.

DATA



A cyclase V (N-20): sc-74300. Western blot analysis of A cyclase V expression in non-transfected: sc-117752 (A) and human A cyclase V transfected: sc-171171 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **A cyclase V/VI (B-6): sc-514785**, our highly recommended monoclonal alternative to A cyclase V (N-20).