BACKGROUND

The vasoactive intestinal peptide (VIP) and pituitary adenylate cyclase-activating polypeptide (PACAP) belong to a superfamily of peptide hormones that include glucagon, secretin and growth hormone releasing hormone. The effects of VIP and PACAP are mediated by three G protein-coupled receptors, VPAC1, VPAC2 and the PACAP receptor (also designated PAC1-R). The VPAC receptors have equal affinities for VIP and PACAP, which stimulate the activation of adenyl cyclase. Both VPAC1 and VPAC2 are abundantly expressed in brain and T cells, where they modulate neuronal differentiation and T cell activation, respectively. The PACAP receptor is a seven transmembrane protein that produces at least eight isoforms by alternative splicing. Each isoform is associated with a specific signaling pathway and a specific expression pattern. The PACAP receptor, which is thought to play an integral role in brain development, preferentially binds PACAP in order to stimulate a cAMP-protein kinase A signaling pathway.

CHROMOSOMAL LOCATION

Genetic locus: VIPR2 (human) mapping to 7q36.3; Vipr2 (mouse) mapping to 12 F2.

SOURCE

VPAC2 (H-50) is a rabbit polyclonal antibody raised against amino acids 101-150 mapping within an internal region of VPAC2 of human origin.

PRODUCT

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

APPLICATIONS

VPAC2 (H-50) is recommended for detection of VPAC2 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

VPAC2 (H-50) is also recommended for detection of VPAC2 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for VPAC2 siRNA (h): sc-40283, VPAC2 siRNA (m): sc-40284, VPAC2 shRNA Plasmid (h): sc-40283-SH, VPAC2 shRNA Plasmid (m): sc-40284-SH, VPAC2 shRNA (h) Lentiviral Particles: sc-40283-V and VPAC2 shRNA (m) Lentiviral Particles: sc-40284-V.

Molecular Weight of VPAC2: 65 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

STORAGE

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

SELECT PRODUCT CITATIONS


RESEARCH USE

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

PROTOCOLS

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

Try VPAC2 (5B3): sc-135604, our highly recommended monoclonal alternative to VPAC2 (H-50).