

PC2 (H-68): sc-30166

BACKGROUND

The subtilisin-like prohormone convertase (PC) family mediates the cleavage of latent precursor proteins into their biologically active forms. This is a tightly regulated process that leads to the generation of various active peptides and proteins, including neuropeptides, polypeptide hormones, protein tyrosine phosphatases, growth factors and their receptors, and enzymes such as matrix metalloproteases (MMPs). These processing reactions occur at pairs of basic amino acids. The members of the PC family include furin, PC1/3, PC2, PC4, PACE4, PC5/6, and PC7/8 (also designated lymphoma proprotein convertase or LPC), all of which share homology to the bacterial subtilisin and yeast kexin families of endoproteases. PC1/3, also designated neuroendocrine 1 (NEC1), and PC2, also designated neuroendocrine 2 (NEC2), are widely expressed in neuroendocrine tissues, and are principally involved in the processing of hormonal and neural peptides. The human PC2 gene maps to chromosome 20p12.1, and is expressed in pancreatic islets, pituitary, and brain as a precursor protein and a mature form. Cleavage of proPC2 is dependent upon its interaction with 7B2, a cofactor that acts as both an activator and inhibitor of PC2 function. Proteins processed by PC2 include proglucagon, prosomatostatin, proinsulin, and pro-islet amyloid polypeptide.

CHROMOSOMAL LOCATION

Genetic locus: PCSK2 (human) mapping to 20p12.1; Pcsk2 (mouse) mapping to 2 G1.

SOURCE

PC2 (H-68) is a rabbit polyclonal antibody raised against amino acids 571-638 mapping at the C-terminus of PC2 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

PC2 (H-68) is recommended for detection of PC2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PC2 (H-68) is also recommended for detection of PC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PC2 siRNA (h): sc-40884, PC2 siRNA (m): sc-40885, PC2 shRNA Plasmid (h): sc-40884-SH, PC2 shRNA Plasmid (m): sc-40885-SH, PC2 shRNA (h) Lentiviral Particles: sc-40884-V and PC2 shRNA (m) Lentiviral Particles: sc-40885-V.

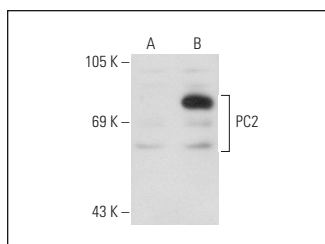
Molecular Weight of PC2: 75/68 kDa.

Positive Controls: PC2 (h): 293T Lysate: sc-172360, SK-N-SH cell lysate: sc-2410 or BC₃H1 cell lysate: sc-2299.

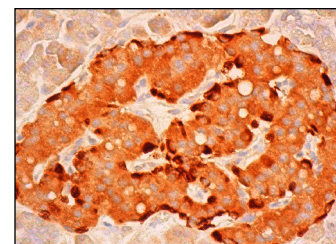
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PC2 (H-68): sc-30166. Western blot analysis of PC2 expression in non-transfected: sc-117752 (A) and human PC2 transfected: sc-172360 (B) 293T whole cell lysates.



PC2 (H-68): sc-30166. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

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.

PROTOCOLS

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



Try **PC2 (E-8): sc-374140**, our highly recommended monoclonal alternative to PC2 (H-68).