

# EPCR (P-20): sc-23575

## BACKGROUND

Thrombomodulin™ is an endothelial specific receptor that forms a complex with thrombin, a protein with procoagulant, inflammatory and anticoagulant effects. The TM/thrombin complex activates protein C (PC) to generate activated protein C (APC) and initiate the APC anticoagulant pathway. APC attenuates thrombin formation through the inactivation, by limited proteolysis, of two significant cofactors of blood clot formation, Factor Va and Factor VIIIa. This process is augmented by the activity of the endothelial cell Protein C receptor (EPCR), which binds both PC and APC with high affinity. The EPCR gene maps to human chromosome 20q11.22 and encodes an anticoagulant that is preferentially expressed on large blood vessel endothelium in the heart and lung with some expression in capillaries in the lung and skin. EPCR, also designated CCD41 in mouse, is a member of the major histocompatibility complex and displays significant homology to CD1. Soluble plasma EPCR is thought to inhibit the membrane-bound EPCR activation of the APC pathway.

## CHROMOSOMAL LOCATION

Genetic locus: PROCRC (human) mapping to 20q11.22; Procr (mouse) mapping to 2 H1.

## SOURCE

EPCR (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EPCR of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-23575 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

EPCR (P-20) is recommended for detection of EPCR 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).

EPCR (P-20) is also recommended for detection of EPCR in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EPCR siRNA (h): sc-39932, EPCR siRNA (m): sc-39933, EPCR shRNA Plasmid (h): sc-39932-SH, EPCR shRNA Plasmid (m): sc-39933-SH, EPCR shRNA (h) Lentiviral Particles: sc-39932-V and EPCR shRNA (m) Lentiviral Particles: sc-39933-V.

Molecular Weight (predicted) of EPCR: 27 kDa.

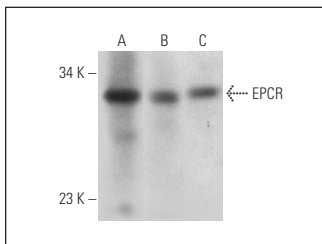
Molecular Weight (observed) of EPCR: 32 kDa.

Positive Controls: rat heart extract: sc-2393, mouse thyroid extract: sc-2407 or mouse skin extract: sc-364251.

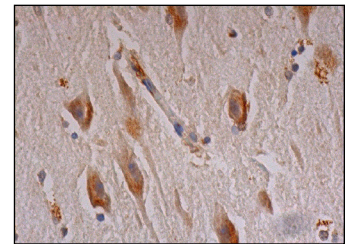
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



EPCR (P-20): sc-23575. Western blot analysis of EPCR expression in rat heart (A), mouse thyroid (B) and mouse skin (C) tissue extracts.



EPCR (P-20): sc-23575. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells, glial cells and endothelial cells.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **EPCR (RCR-49): sc-53982**, our highly recommended monoclonal alternative to EPCR (P-20).