**BACKGROUND**

Patients with polycythemia vera (PV), a neoplastic stem cell disorder that leads to excessive production of all myeloid cell lines, overexpress the cell surface antigen CD177, also designated NB1. The increased output, especially of red blood cells, increases whole blood viscosity and causes vascular occlusion and ischemia. Because of the marked upregulation of CD177 in PV patients, as compared to healthy individuals or those with other erythrocytosis-related conditions, analysis of this protein presents a useful tool for diagnosis and research into the mechanisms of PV.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CD177 (human) mapping to 19q13.31; Cd177 (mouse) mapping to 7 A3.

**SOURCE**

CD177 (C-5) is a mouse monoclonal antibody raised against amino acids 27-247 mapping within an internal region of CD177 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD177 (C-5) is available conjugated to agarose (sc-376329 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376329 AF555), 200 µg/ml, for WB, HIC(P) and ELISA; to either phycoerythrin (sc-376329 PE), fluorescein (sc-376329 FITC), Alexa Fluor® 488 (sc-376329 AF488), Alexa Fluor® 546 (sc-376329 AF546), Alexa Fluor® 594 (sc-376329 AF594) or Alexa Fluor® 647 (sc-376329 AF647), 200 µg/ml, for WB (RGB), IF, HIC(P) and FCM; and to either Alexa Fluor® 680 (sc-376329 AF680) or Alexa Fluor® 790 (sc-376329 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

CD177 (C-5) is recommended for detection of CD177 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CD177 siRNA (h): sc-105189, CD177 siRNA (m): sc-142181, CD177 shRNA Plasmid (h): sc-105189-SH, CD177 shRNA Plasmid (m): sc-142181-SH, CD177 shRNA (h) Lentiviral Particles: sc-105189-V and CD177 shRNA (m) Lentiviral Particles: sc-142181-V.

Molecular Weight of CD177: 58-64 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-28700, Molecular Weight of CD177: 58-64 kDa.

2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

![Image of Western blot analysis showing CD177 expression in Hep G2 cell lysates](image1.png)

**SELECT PRODUCT CITATIONS**


**STORAGE**

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