

# p55 (H-57): sc-292285

## BACKGROUND

p55 is an extensively palmitoylated erythrocyte membrane protein, and a member of the MAGUK family. p55 also resists salt extraction, resulting in a high affinity for the plasma membrane. p55 contains a PDZ/DHR domain, a conserved SH-3 domain that appears to suppress tyrosine kinase activity of various oncoproteins, a 39 amino acid motif that binds to cytoskeletal protein 4.1R, and a guanylate kinase-like domain. Interaction with glyphorin C (GPC) and 4.1R suggests that p55 may play a role in the dynamic regulation in the erythrocyte membrane. In addition, p55 gene expression *in vivo* may be associated with a CpG island. p55 is constitutively expressed in K-562 erythroleukemia cells during erythropoiesis and undergoes a twp-fold amplification after induction.

## REFERENCES

- Ruff, P., et al. 1991. Molecular identification of a major palmitoylated erythrocyte membrane protein containing the Src homology 3 motif. *Proc. Natl. Acad. Sci. USA* 88: 6595-6599.
- Das, A.K., et al. 1992. Fatty acylation of a 55 kDa membrane protein of human erythrocytes. *Biochem. Biophys. Acta* 1108: 128-132.
- Marfatia, S.M., et al. 1995. Identification of the protein 4.1 binding interface on glyphorin C and p55, a homologue of the *Drosophila* discs-large tumor suppressor protein. *J. Biol. Chem.* 270: 715-719.
- Kim, A.C., et al. 1996. Complete genomic organization of the human erythroid p55 gene (MPP1), a membrane-associated guanylate kinase homologue. *Genomics* 31: 223-229.
- Numonrua, W., et al. 2000. Regulation of protein 4.1R, p55, and glyphorin C ternary complex in human erythrocyte membrane. *J. Biol. Chem.* 275: 24540-24546.

## CHROMOSOMAL LOCATION

Genetic locus: MPP1 (human) mapping to Xq28; Mpp1 (mouse) mapping to X A7.3.

## SOURCE

p55 (H-57) is a rabbit polyclonal antibody raised against amino acids 320-376 mapping within an internal region of erythrocyte membrane protein p55 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.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

p55 (H-57) is recommended for detection of erythrocyte membrane protein p55 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).

p55 (H-57) is also recommended for detection of erythrocyte membrane protein p55 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for p55 siRNA (h2): sc-156153, p55 siRNA (m): sc-42009, p55 shRNA Plasmid (h2): sc-156153-SH, p55 shRNA Plasmid (m): sc-42009-SH, p55 shRNA (h2) Lentiviral Particles: sc-156153-V and p55 shRNA (m) Lentiviral Particles: sc-42009-V.

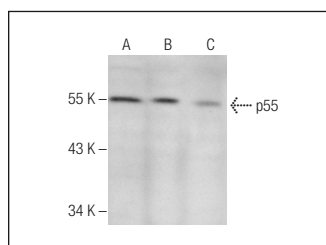
Molecular Weight of p55: 55 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MOLT-4 cell lysate: sc-2233 or HL-60 whole cell lysate: sc-2209.

## 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.

## DATA



p55 (H-57): sc-292285. Western blot analysis of p55 expression in K-562 (A), MOLT-4 (B) and HL-60 (C) whole cell lysates.

## RESEARCH USE

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