BACKGROUND
Proteins containing LIM motifs are typically involved in cell fate determination and growth control. A family of proteins designated LIM kinases, including LIMK-1 and LIMK-2, has been identified. LIMK-1 has been shown to regulate the stabilization of F-Actin structures and cofilin activity, indicating that LIMK-1 plays a role in a signaling pathway involved in the regulation of cell motility and morphogenesis. LIMK-1 inhibits neuronal differentiation of PC12 cells, and is thought to act by interfering with events downstream of MAPK activation. Expression patterns of LIMK-1 and LIMK-2 suggest that these proteins may have different functions during development. A truncated form of LIMK-2 has been identified in adult testis that is thought to arise from an alternative initiation exon.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: LIMK1 (human) mapping to 7q11.23, LIMK2 (human) mapping to 22q11.22; LIMK1 (mouse) mapping to 5 G2, LIMK2 (mouse) mapping to 11 A1.

SOURCE
p-LIMK-1/2 (Thr 508/505)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Thr 505 of LIMK-2 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.

Blocking peptide available for competition studies, sc-28409 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

APPLICATIONS
p-LIMK-1/2 (Thr 508/505)-R is recommended for detection of Thr 508 phosphorylated LIMK-1 and Thr 505 phosphorylated LIMK-2 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).

p-LIMK-1/2 (Thr 508/505)-R is also recommended for detection of correspondingly phosphorylated Thr on LIMK-1 and LIMK-2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of p-LIMK-1/2: 70 kDa.
Positive Controls: THP-1 cell lysate: sc-2238 or THP-1 + PMA cell lysate.

DATA
Western blot analysis of LIMK-1/2 phosphorylation in untreated (A, D), PMA treated (B, E) and PMA and lambda protein phosphatase (sc-200312A) treated (C, F) THP-1 whole cell lysates. Antibodies tested include p-LIMK-1/2 (Thr 508/505) (sc-28409-R) (A, B, C) and LIMK-1 (H-84) (sc-5576) (D, E, F).

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-204B and Lambda Phosphatase: sc-200312A. 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.

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.

CHR. HROMOSOMAL LOCATION
Genetic loci: LIMK1 (human) mapping to 7q11.23, LIMK2 (human) mapping to 22q11.22; LIMK1 (mouse) mapping to 5 G2, LIMK2 (mouse) mapping to 11 A1.

SOURCE
p-LIMK-1/2 (Thr 508/505)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Thr 505 of LIMK-2 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.

Blocking peptide available for competition studies, sc-28409 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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