

# plasminogen (E-14): sc-15036

## BACKGROUND

Cleavage of the serine proteinase plasminogen to form plasmin is the central event in the dissolution of blood clots by the fibrinolytic system. Within the fibrinolytic cascade, the serine proteinases urokinase-type plasminogen activator (uPA) and tissue-type plasminogen activator (tPA) activate the pro-enzyme plasminogen by cleaving plasminogen to form the fibrinolytically active enzyme plasmin. The enzyme plasmin consists of a heavy chain of 561 amino acids, which originates from the N-terminus of plasminogen, and a light chain of 230 amino acid residues, which is derived from the C-terminus of plasminogen. Plasmin is a proangiogenic proteinase that is capable of degrading a variety of extracellular matrix proteins and that facilitates endothelial cell migration and angiogenesis. In the presence of free sulfhydryl donors (FSD), plasmin undergoes auto-proteolysis and is converted to the enzyme angiostatin, which blocks angiogenesis and neovascularization and can inhibit the growth of primary and metastatic tumors.

## CHROMOSOMAL LOCATION

Genetic locus: Plg (mouse) mapping to 17 A1.

## SOURCE

plasminogen (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of plasminogen 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-15036 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

plasminogen (E-14) is recommended for detection of plasminogen and plasmin heavy chain A of mouse and rat 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).

plasminogen (E-14) is also recommended for detection of plasminogen and plasmin heavy chain A in additional species, including bovine.

Suitable for use as control antibody for plasminogen siRNA (m): sc-40858, plasminogen shRNA Plasmid (m): sc-40858-SH and plasminogen shRNA (m) Lentiviral Particles: sc-40858-V.

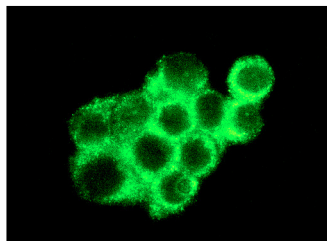
Molecular Weight of plasminogen: 90 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213 or plasminogen (m): 293T Lysate: sc-122619.

## 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.

## DATA



plasminogen (E-14): sc-15036. Immunofluorescence staining of methanol-fixed WEHI-231 cells showing cell surface localization.

## SELECT PRODUCT CITATIONS

- Hou, Y., et al. 2008. Annexin A2 regulates the levels of plasmin, S100A10 and Fascin in L5178Y cells. *Cancer Invest.* 26: 809-815.
- Chen, B., et al. 2012. Thrombin activity associated with neuronal damage during acute focal ischemia. *J. Neurosci.* 32: 7622-7631.
- Rodríguez-Flores, E., et al. 2012. The response of the fibrinolytic system to mycobacteria infection. *Tuberculosis* 92: 497-504.

## 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.


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Try **plasminogen (G-7): sc-376405** or **plasminogen (10A1): sc-69793**, our highly recommended monoclonal alternatives to plasminogen (E-14).