

Polyserase-3 (C-18): sc-83010

BACKGROUND

Polyserase-3, also known as POL3S or polyserine protease 3, is a 553 amino acid protein belonging to the peptidase S1 family. Predominantly detected in testis, liver, heart and ovary, as well as in several tumor cell lines, Polyserase-3 contains two serine protease domains embedded in the same polypeptide chain. Considered a novel non-glycosylated secreted polyprotein, Polyserase-3 is similar to Polyserase-2, but lacks additional domains such as the type II transmembrane motif and the low-density lipoprotein receptor module present in the membrane-anchored Polyserase-1. Polyserase-3 may be involved in the degradation of the α -chain of fibrinogen as well as pro-urokinase-type plasminogen activator (pro-uPA).

REFERENCES

1. Del Rosso, M., et al. 2002. Multiple pathways of cell invasion are regulated by multiple families of serine proteases. *Clin. Exp. Metastasis* 19: 193-207.
2. Cal, S., et al. 2003. Polyserase-I, a human polyprotease with the ability to generate independent serine protease domains from a single translation product. *Proc. Natl. Acad. Sci. USA* 100: 9185-9190.
3. Cal, S., et al. 2005. Human Polyserase-2, a novel enzyme with three tandem serine protease domains in a single polypeptide chain. *J. Biol. Chem.* 280: 1953-1961.
4. Cal, S., et al. 2006. Identification and characterization of human Polyserase-3, a novel protein with tandem serine-protease domains in the same polypeptide chain. *BMC Biochem.* 7: 9.
5. Okumura, Y., et al. 2006. Serase-1B, a new splice variant of Polyserase-1/TMPRSS9, activates urokinase-type plasminogen activator and the proteolytic activation is negatively regulated by glycosaminoglycans. *Biochem. J.* 400: 551-561.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610561. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Qiu, D., et al. 2007. Roles and regulation of membrane-associated serine proteases. *Biochem. Soc. Trans.* 35: 583-587.

CHROMOSOMAL LOCATION

Genetic locus: POL3S (human) mapping to 16p11.2.

SOURCE

Polyserase-3 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Polyserase-3 of human origin.

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 or our catalog for detailed protocols and support products.

PRODUCT

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

Blocking peptide available for competition studies, sc-83010 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Polyserase-3 (C-18) is recommended for detection of Polyserase-3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with family members Polyserase-1 or Polyserase-2.

Suitable for use as control antibody for Polyserase-3 siRNA (h): sc-76199, Polyserase-3 shRNA Plasmid (h): sc-76199-SH and Polyserase-3 shRNA (h) Lentiviral Particles: sc-76199-V.

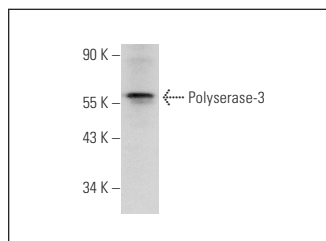
Molecular Weight of Polyserase-3: 55 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181.

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



Polyserase-3 (C-18): sc-83010. Western blot analysis of Polyserase-3 expression in NTERA-2 cl.D1 whole cell lysate.

RESEARCH USE

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