

# DSPG3 (K-14): sc-107529

## BACKGROUND

The leucine-rich (LRR) repeat is a 20-30 amino acid motif that forms a hydrophobic  $\alpha/\beta$  horseshoe fold, allowing it to accommodate several leucine residues within a tightly packed core. All LRR repeats contain a variable segment and a highly conserved segment, the latter of which accounts for 11 or 12 residues of the entire LRR motif. LRRs are present in many proteins from prokaryotes to eukaryotes. DSPG3 (dermatan sulfate proteoglycan 3), also known as PGLB, Pg-Lb, SLRR3B or EPYC, is a 322 amino acid secreted protein that belongs to the small leucine-rich proteoglycan (SLRP) family. Expressed in cartilage, ligament and placenta, DSPG3 may have a role in bone formation and in establishing the ordered structure of cartilage through matrix organization. It has been suggested that DSPG3 regulates fibrillogenesis by interacting with collagen fibrils and other extracellular matrix proteins.

## REFERENCES

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- Johnson, J., et al. 1999. Expression and localization of PG-Lb/epiphycan during mouse development. *Dev. Dyn.* 216: 499-510.
- Deere, M., et al. 1999. Genomic characterization of human DSPG3. *Genome Res.* 9: 449-456.
- Danielson, K.G., et al. 1999. Decorin, epiphycan, and lumican genes are closely linked on murine chromosome 10 and are deleted in lethal steel mutants. *Mamm. Genome* 10: 201-203.
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- Zhou, W., et al. 2006. Molecular cloning and expression of two small leucine-rich proteoglycan (SLRP) genes, *dspg3l* and *optcl*, in zebrafish. *Gene Expr. Patterns* 6: 482-488.

## CHROMOSOMAL LOCATION

Genetic locus: EPYC (human) mapping to 12q21.33; Epyc (mouse) mapping to 10 C3.

## SOURCE

DSPG3 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DSPG3 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-107529 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DSPG3 (K-14) is recommended for detection of DSPG3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

DSPG3 (K-14) is also recommended for detection of DSPG3 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for DSPG3 siRNA (h): sc-95706, DSPG3 siRNA (m): sc-143179, DSPG3 shRNA Plasmid (h): sc-95706-SH, DSPG3 shRNA Plasmid (m): sc-143179-SH, DSPG3 shRNA (h) Lentiviral Particles: sc-95706-V and DSPG3 shRNA (m) Lentiviral Particles: sc-143179-V.

Molecular Weight of DSPG3 precursor: 52 kDa.

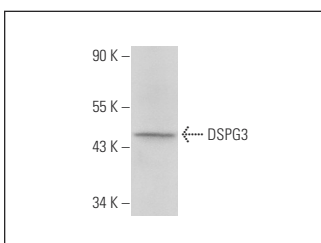
Molecular Weight of mature DSPG3: 43 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## 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



DSPG3 (K-14): sc-107529. Western blot analysis of DSPG3 expression in Hep G2 whole cell lysate.

## STORAGE

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

## RESEARCH USE

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