

# XylT-I (A-20): sc-50870

## BACKGROUND

Xylosyltransferase-I (XylT-I), also designated UDP-D-xylose:proteoglycan core protein  $\beta$ -D-xylosyltransferase 1, is a glycoprotein that catalyzes the transfer of UDP-xylose to serine residues within XT recognition sequences of target proteins. Addition of xylose to the core protein is a requirement for the biosynthesis of the glycosaminoglycan chains that are characteristic of proteoglycans. Xylosyltransferase proteins, which can be secreted, display activity in sternal cartilage chondrocytes, chondrosarcoma, nasal septum tumor and choriocarcinoma cells. XylT-I is widely expressed, with higher levels of expression detected in placenta, kidney and pancreas, and lower levels of expression observed in skeletal muscle. Xylosyltransferase-II (XylT-II), also designated UDP-D-xylose:proteoglycan core protein  $\beta$ -D-xylosyltransferase 2, is also widely expressed, with higher levels of expression detected in kidney and pancreas.

## REFERENCES

- Götting, C., et al. 2004. Analysis of the DXD motifs in human xylosyltransferase I required for enzyme activity. *J. Biol. Chem.* 279: 42566-42573.
- Schön, S., et al. 2005. Impact of polymorphisms in the genes encoding Xylosyltransferase I and a homologue in type 1 diabetic patients with and without nephropathy. *Kidney Int.* 68: 1483-1490.
- Götting, C., et al. 2005. Elevated xylosyltransferase I activities in pseudoxanthoma elasticum (PXE) patients as a marker of stimulated proteoglycan biosynthesis. *J. Mol. Med.* 83: 984-992.
- Kuhn, J., et al. 2005. Xylosyltransferase I acceptor properties of fibroblast growth factor and its fragment  $\beta$ FGF (1-24). *Biochem. Biophys. Res. Commun.* 333: 156-166.
- Schöttler, M., et al. 2005. Serum not affected by renal insufficiency. *Clin. Biochem.* 38: 486-488.
- Müller, S., et al. 2006. Human Xylosyltransferase I and N-terminal truncated forms: functional characterization of the core enzyme. *Biochem. J.* 394: 163-171.

## CHROMOSOMAL LOCATION

Genetic locus: XYLT1 (human) mapping to 16p12.3; Xylt1 (mouse) mapping to 7 F2.

## SOURCE

XylT-I (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of XylT-I 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-50870 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

XylT-I (A-20) is recommended for detection of XylT-I 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).

Suitable for use as control antibody for XylT-I siRNA (h): sc-61817, XylT-I siRNA (m): sc-61818, XylT-I shRNA Plasmid (h): sc-61817-SH, XylT-I shRNA Plasmid (m): sc-61818-SH, XylT-I shRNA (h) Lentiviral Particles: sc-61817-V and XylT-I shRNA (m) Lentiviral Particles: sc-61818-V.

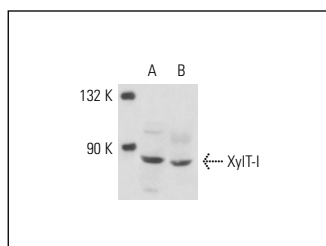
Molecular Weight observed of average XylT-I: 72 kDa.

Positive Controls: JAR cell lysate: sc-2276 or MIA PaCa-2 cell lysate: sc-2285.

## 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



XylT-I (A-20): sc-50870. Western blot analysis of XylT-I expression in JAR (A) and MIA PaCa-2 (B) whole cell lysates.

## STORAGE

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

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Try **XylT-I (E-5): sc-390671**, our highly recommended monoclonal alternative to XylT-I (A-20).