

## EXTL2 (K-20): sc-46954

### BACKGROUND

EXTL2 is an  $\alpha$ 1,4-N-acetylhexosaminyltransferase that catalyzes the transfer reaction of N-acetylglucosamine and N-acetylgalactosamine from the respective UDP-sugars to the non-reducing end of [glucuronic acid]  $\beta$ 1-3 [galactose]  $\beta$ 1-O-naphthalenemethanol, an acceptor substrate analog of the natural common linker of various glycosylaminoglycans. Also designated exostosin-like protein 2, EXTL2 has been purified from the serum-free culture of a human sarcoma cell line and is a member of the hereditary multiple exostoses (EXT) gene family of tumor suppressors.

### REFERENCES

1. Kitagawa, H., Shimakawa, H. and Sugahara, K. 1999. The tumor suppressor EXT-like gene EXTL2 encodes an  $\alpha$ 1,4-N-acetylhexosaminyltransferase that transfers N-acetylgalactosamine and N-acetylglucosamine to the common glycosaminoglycan-protein linkage region. The key enzyme for the chain initiation of heparan sulfate. *J. Biol. Chem.* 274: 13933-13937.
2. Pedersen, L.C., Dong, J., Taniguchi, F., Kitagawa, H., Krahn, J.M., Pedersen, L.G., Sugahara, K. and Negishi, M. 2003. Crystal structure of an  $\alpha$ 1,4-N-acetylhexosaminyltransferase (EXTL2), a member of the exostosin gene family involved in heparan sulfate biosynthesis. *J. Biol. Chem.* 278: 14420-14428.
3. Sobhany, M., Dong, J. and Negishi, M. 2005. Two-step mechanism that determines the donor binding specificity of human UDP-N-acetylhexosaminyltransferase. *J. Biol. Chem.* 280: 23441-23445.

### CHROMOSOMAL LOCATION

Genetic locus: EXTL2 (human) mapping to 1p21.2; Extl2 (mouse) mapping to 3 G1.

### SOURCE

EXTL2 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EXTL2 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-46954 P, (100  $\mu$ g 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.

### 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.

### APPLICATIONS

EXTL2 (K-20) is recommended for detection of EXTL2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

EXTL2 (K-20) is also recommended for detection of EXTL2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EXTL2 siRNA (h): sc-60611, EXTL2 siRNA (m): sc-60612, EXTL2 shRNA Plasmid (h): sc-60611-SH, EXTL2 shRNA Plasmid (m): sc-60612-SH, EXTL2 shRNA (h) Lentiviral Particles: sc-60611-V and EXTL2 shRNA (m) Lentiviral Particles: sc-60612-V.

Molecular Weight of EXTL2: 30 kDa.

### 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) 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.