

EXTL3 (G-5): sc-271986

BACKGROUND

EXTL3 (exostosin-like 3), also known as Reg receptor, EXT-related protein 1 (EXTR1) or glucuronyl-galactosyl-proteoglycan 4- α -N-acetylglucosaminyltransferase, is a member of the EXT (hereditary multiple exostosin) gene family of tumor suppressors encoding glycosyltransferases involved in heparan sulfate (HS) biosynthesis. Within this family, the C-terminus is conserved between all members from *C. elegans* to vertebrates. EXTL3 is a ubiquitously expressed, developmentally regulated, single-pass type II membrane protein that localizes to the endoplasmic reticulum membrane. EXTL3 adds N-acetylglucosamine (GlcNAc) to the polysaccharide-protein linkage region and to the growing HS chain suggesting that it plays a role in both the initiation and elongation of HS chains. In addition, EXTL3 may act as a Reg receptor, binding Reg via its N-terminus.

CHROMOSOMAL LOCATION

Genetic locus: EXTL3 (human) mapping to 8p21.1.

SOURCE

EXTL3 (G-5) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of EXTL3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EXTL3 (G-5) is available conjugated to agarose (sc-271986 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271986 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271986 PE), fluorescein (sc-271986 FITC), Alexa Fluor[®] 488 (sc-271986 AF488), Alexa Fluor[®] 546 (sc-271986 AF546), Alexa Fluor[®] 594 (sc-271986 AF594) or Alexa Fluor[®] 647 (sc-271986 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271986 AF680) or Alexa Fluor[®] 790 (sc-271986 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

EXTL3 (G-5) is recommended for detection of EXTL3 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for EXTL3 siRNA (h): sc-105342, EXTL3 shRNA Plasmid (h): sc-105342-SH and EXTL3 shRNA (h) Lentiviral Particles: sc-105342-V.

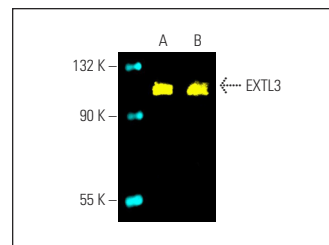
Molecular Weight of EXTL3: 105 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236.

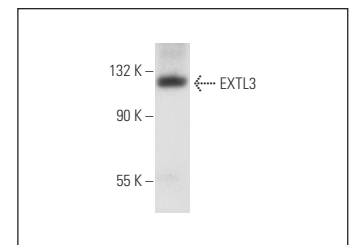
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



EXTL3 (G-5) Alexa Fluor[®] 488: sc-271986 AF488. Direct fluorescent western blot analysis of EXTL3 expression in U-2 OS (A) and NTERA-2 cl.D1 (B) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Cruz Marker[™] Molecular Weight Standards detected with Cruz Marker[™] MW Tag-Alexa Fluor[®] 647: sc-516791.



EXTL3 (G-5): sc-271986. Western blot analysis of EXTL3 expression in SK-MEL-28 whole cell lysate.

SELECT PRODUCT CITATIONS

- Lai, Y., et al. 2012. The antimicrobial protein REG3A regulates keratinocyte proliferation and differentiation after skin injury. *Immunity* 37: 74-84.
- Kuhn, P.H., et al. 2015. Secretome analysis identifies novel signal peptide peptidase-like 3 (Sppl3) substrates and reveals a role of Sppl3 in multiple Golgi glycosylation pathways. *Mol. Cell. Proteomics* 14: 1584.
- Momose, T., et al. 2016. Chondroitin sulfate synthase 1 expression is associated with malignant potential of soft tissue sarcomas with myxoid substance. *Hum. Pathol.* 50: 15-23.
- Papadopoulou, A.A., et al. 2019. Signal peptide peptidase-like 2c (SPPL2c) impairs vesicular transport and cleavage of SNARE proteins. *EMBO Rep.* 20: 46451.
- Song, N., et al. 2021. N-Glycans and sulfated glycosaminoglycans contribute to the action of diverse Tc toxins on mammalian cells. *PLoS Pathog.* 17: e1009244.
- Ahat, E., et al. 2022. GRASP depletion-mediated Golgi fragmentation impairs glycosaminoglycan synthesis, sulfation, and secretion. *Cell. Mol. Life Sci.* 79: 199.

RESEARCH USE

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

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA