

# Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
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# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

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## Sulf2 Blocking Peptide

### BACKGROUND

Sulf-2 exhibits arylsulfatase activity and highly specific endoglucosamine -6-sulfatase activity. It can remove sulfate from the C-6 position of glucosamine within specific subregions of intact heparin.

Heparan sulfate proteoglycans act as co-receptors for numerous heparinbinding growth factors and cytokines and are key regulators of cell signaling. Growth factor binding to heparan sulfate results in mitogenic activity only when specific structural features are present within the heparan sulfate chains. These features include sulfation at specific positions within a disaccharide (N, 2-O, 3-O, 6-O) by the enzymes that regulate heparan sulfate synthesis inside the Golgi. Following synthesis and expression, heparan sulfate can be structurally and functionally modified within the extracellular compartment. Enzymes known to have these effects are heparanase, which cleaves heparan sulfate chains into smaller biologically active fragments, and the heparan sulfate 6-Oendosulfatases (Sulfs). The Sulfs represent a new and novel family of enzymes that are secreted via the Golgi and subsequently localized to the cell surface or may be released into the extracellular matrix. Sulf-1 enzyme is required for Wnt-mediated signaling in developing quail muscle. Sulf1 was shown (in guial) to restore bone morphogenetic protein signaling in cells by releasing the functional inhibitor, Noggin, from cell surfaces. Quail Sulf1 can also inhibit growth factor signaling, the removal of the 6-O-sulfation is required for the formation of the FGF HS FR1c ternary complex blocking FGF2 signaling.

Analysis of human tumor tissue and tumor cell lines suggests that HSulf-1 is misregulated in cancers. HSulf-1 is found in a variety of normal tissues but is down-regulated in tumor cell lines originating from ovarian, breast, pancreatic, renal, and hepatocellular carcinoma.

## COMMENTS

Blocking peptide for use with Sulf-2 antibodies (Cat. Nos. X1858P & X1865P).

ORDERING INFORMATION CATALOG NUMBER X1853B Size 50 μg Customer Storage Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

FORMULATION

Provided as solution in phosphate buffered saline with 0.08% sodium azide

Ship at ambient temperature, freeze upon arrival

**STABILITY** Products are stable for one year from purchase when stored properly

#### INSTRUCTIONS

Incubate antibody neat with at least a 50 fold stoichiometric excess of blocking peptide at 37 deg C for 20 minutes (molecular weights of peptide and antibody are ~2.5 kDa and ~160 kDa, respectively). Antibody can then be diluted to a concentration suitable for Western blot.

Example: 10  $\mu$ I or 10  $\mu$ g of Exalpha's rabbit anti-Sulf-2 (Cat. No. X1858P or X1865P) is added to 10  $\mu$ g of blocking peptide for a total volume of 20  $\mu$ I. The mixture is allowed to incubate for 20 minutes at 37 deg C prior to dilution in suitable buffer (for Western blot, etc.).

Last Modified 3/22/2012

For research use only. Not for use in human diagnostics or therapeutics.

Exalpha Biologicals, Inc. 2 Shaker Road, Bldg. B101 Shirley, MA 01464 Tel: 800.395.1137 Fax: 866.924.5100 www.exalpha.com info@exalpha.com Page 1 of 2 Cat. No. X1853B