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# Product Information

**Anti-Sonic Hedgehog Peptide (C-terminal)**
produced in goat, affinity isolated antibody

Catalog Number **S9822**

## Product Description

Anti-Sonic Hedgehog Peptide (C-terminal) is produced in goats immunized with purified, *E. coli*-derived, recombinant mouse 6X histidine-tagged Sonic Hedgehog (rmShh) C-terminal peptide and N-terminal peptide (GeneID 20423). Shh C-terminal peptide specific IgG was purified by first passing the goat sera over a mouse Shh N-terminal peptide affinity column. The unbound fraction from the mouse Shh N-terminal peptide affinity column was subsequently purified using a mouse Shh C-terminal peptide affinity column.

Anti-Sonic Hedgehog Peptide (C-terminal) recognizes mouse Sonic Hedgehog C-terminal peptide. Applications include immunoblotting and immunohistochemistry. This antibody shows less than 5% cross-reactivity with rmDhh C-terminal peptide and less than 1% cross-reactivity with a 6X histidine-tagged rmShh N-terminal peptide (amino acids 25-198).

Sonic Hedgehog (Shh) is an important cell signaling molecule expressed during embryonic development. Shh is involved in patterning of the developing embryonic systems such as the nervous system, somite, and limb. The N-terminal peptide of Shh is released by autoproteolysis and functions through interactions with a multicomponent receptor complex containing the transmembrane proteins Patched and Smoothened. Shh is expressed in key embryonic tissues such as the Hensen's node, zone of polarizing activity in the posterior limb bud, notochord, and floor plate of the neural tube. Downstream targets of Shh include the transcription factors Gli3, responsible for Greigs polycephalosyndactyly in humans, and Hoxd13, responsible for polysyndactyly.[1-6]

## Reagent

Supplied lyophilized from a 0.2 μm filtered solution of phosphate buffered saline with 5% trehalose.

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Preparation Instructions

To one vial of lyophilized powder, add 1 mL of 0.2 µm filtered PBS to produce a 0.1 mg/mL stock solution. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

## Storage/Stability

Prior to reconstitution, store at –20 °C. The reconstituted product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended.

## Product Profile

Immunoblotting: a working concentration of 0.1–0.2 μg/mL is recommended. The detection limit for rmShh C-terminal peptide is ~5 ng/lane under non-reducing and reducing conditions.

Immunohistochemistry: a working concentration of 15 μg/mL is recommended for use in detecting Shh.

**Note**: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

Endotoxin: < 0.1 EU/µg antibody as determined by the LAL method.

**References**
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