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Product Information

Monoclonal Anti-Sonic Hedgehog Peptide (N-terminal), clone 171001
produced in rat, purified immunoglobulin

Catalog Number **S0198**

Product Description

Monoclonal Anti-Sonic Hedgehog Peptide (N-terminal) is produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, *E. coli*-derived, recombinant mouse Sonic Hedgehog (rmShh) N-terminal peptide (amino acids 25-198), (GeneID 20423). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Anti-Sonic Hedgehog Peptide (N-terminal) recognizes human and mouse Sonic Hedgehog N-terminal peptide (amino acids 25-198) or human Shh (amino acids 24-197). Applications include immunoblotting. Based on immunoblotting, this antibody shows 50-100% cross-reactivity with the N-terminal peptides of mouse Dhh (amino acids 23-198) and Ihh (amino acids 66-240) and no cross-reactivity with the C-terminal peptides from rmShh (amino acids 199-437), rmDhh (amino acids 199-396) or rmIhh (amino acids 241-449).

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 0.5 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 1–2 μg/mL is recommended. The detection limit for rmShh N-terminal peptide is ~5 ng/lane under non-reducing and reducing conditions.

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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