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#51772**Mouse Sonic Hedgehog (Shh)
Recombinant Protein**

25 µg


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For Research Use Only. Not for Use in Diagnostic Procedures.MW (kDa):
19.8UniProt ID:
#Q62226Entrez-Gene Id:
20423**Background**

Hedgehog proteins (Hh) are secreted signaling proteins that play many roles during animal development. Aberrant Hh signaling activity can be associated with numerous birth defects and uncontrolled Hh pathway activation is linked to the development of several types of cancers (1-2). The three identified vertebrate Hh genes are Sonic (*Shh*), Indian (*Ihh*) and Desert (*Dhh*), all of which have distinct as well as overlapping roles (3-5). Hh proteins are synthesized as 45 kDa precursors that undergo auto-cleavage to generate a 19 kDa amino-terminal peptide (Hh-N) and a carboxy-terminal peptide (Hh-C). The Hh-N becomes covalently attached to a cholesterol molecule at its carboxy terminus and acetylated at its amino terminus. This doubly modified Hh-N peptide is released from cells and responsible for all known Hedgehog signaling activity (6).

Endotoxin

Endotoxin levels are less than or equal to 1 EU / 1 µg mShh.

Purity

A greater than or equal to 95% purity was determined by SDS-PAGE.

Source / Purification

Recombinant mouse Shh was expressed in *E. coli* and is supplied in a lyophilized form.

Background References

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2. McMahon, A.P. et al. (2003) *Curr. Top. Dev. Biol.* 53, 1-114.
3. Zhang, X.M. et al. (2001) *Cell* 106, 781-792.
4. Adolphe, C. et al. (2004) *Development* 131, 5009-5019.
5. Pathi, S. et al. (2001) *Mech. Dev.* 106, 107-117.
6. Bijlsma, M.F. et al. (2004) *Bioessays* 26, 387-394.

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