



Synonyms Hhg1

**Sonic Hedgehog (Shh)** is a member of the Hedgehog (Hh) family of highly conserved proteins which are widely represented throughout the animal kingdom. In mammal, there are three related Hh proteins, Sonic (Shh), Desert (Dhh) and Indian (Ihh). They share a high degree of amino-acid sequence identity (e.g., Shh and Ihh are 93% identical). Sonic

Hedgehog plays a role in cell growth, cell specialization, and the normal shaping

**Description** (patterning) of the body. Shh is also important for development of the brain and spinal

cord (central nervous system), eyes, limbs, and many other parts of the body.

Recombinant **human Sonic Hedgehog (C24II) (rhShh)** produced in *E. coli* is a single non-glycosylated polypeptide chain containing 175 amino acids. A fully biologically active molecule, rhShh has a molecular mass of 19.7 kDa analyzed by reducing SDS-PAGE and

is obtained by proprietary chromatographic techniques.

Accession No Q15465

Species Human Source E. coli

**Biological Activity** ED<sub>50</sub> < 2.0  $\mu$ g/ml, measured by its ability to induce alkaline phosphatase production by C3H/10T1/2 (CCL-226) Cells, corresponding to a specific activity of > 500 units/mg.

IIGPGRGFGK RRHPKKLTPL AYKQFIPNVA EKTLGASGRY EGKISRNSER FKELTPNYNP DIIFKDEENT GADRLMTQRC

Sequence KDKLNALAIS VMNQWPGVKL RVTEGWDEDG HHSEESLHYE GRAVDITTSD RDRSKYGMLA RLAVEAGFDW VYYESKAHIH

CSVKAENSVA AKSGG

## **Properties**

	Measured Molecula Weight	<sup>r</sup> 19.7 kDa, observed by reducing SDS-PAGE.
	Purity	> 95% by SDS-PAGE and HPLC analyses.
	<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
	Reconstitution	Reconstituted in ddH <sub>2</sub> O at 100 μg/ml.
	<b>Endotoxin Level</b>	< 0.2 EU/μg, determined by LAL method.
	Storage	Lyophilized recombinant <b>human Sonic Hedgehog (C24II) (rhShh)</b> remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhShh should be

months at lower than -70°C from date of receipt. Upon reconstitution, rhShh should be

stable up to 2 weeks at 4°C or up to 3 months at -20°C.

**Note** For research use only

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