

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant Shh (C24II), Human

Catalog Number: BK0159-1mg

Source: Escherichia coli.

Quantity: 1mg

### Description:

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 (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 at GenScript.

### Molecular Weight:

19.7 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE and HPLC analyses.

### Biological Activity:

ED50 < 2.0 µg/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.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) pow-

der.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

IIGPGRGFGKRRHPKKLTPLAYKQFIP-  
NVAEKTGASGRYEGKISRNSERFKELT-  
PNYNPDIIFKDEENTGADRLMTQRCK-  
DKLNALAISVMNQWPGVKLRVTEGWD-  
EDGHHSEESLHYEGRAVDITTSRDRSKYG-  
MLARLAVEAGFDWVYYESKAHIHCSV-  
KAENSVAAKSGG

### Endotoxin:

< 0.2 EU/µg, determined by LAL method.

### Reconstitution:

Reconstituted in ddH2O at 100 µg/ml.

### Storage:

Lyophilized recombinant human Sonic Hedgehog (C24II) (rhShh) remains stable up to 6 months at -80 °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.

### Usage:

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