

## Datasheet for 010-001-W24-0005

**rMouse Sonic Hedgehog Protein****Overview**

<b>Description:</b>	Mouse Sonic Hedgehog Recombinant Protein - 010-001-W24-0005
<b>Item No.:</b>	010-001-W24-0005
<b>Size:</b>	5 µg
<b>Applications:</b>	Cellular Assay
<b>Origin:</b>	Mouse
<b>Expressed in:</b>	E. coli

**Product Details**

<b>Background:</b>	Sonic hedgehog (SHH) is a member of a small group of secreted proteins that are essential for development in both vertebrates and invertebrates. Three mammalian hedgehog genes (sonic, desert, Indian) share about 60% homology and all signal via the same receptors. Recombinant mouse SHH is a non-glycosylated protein, containing 176 amino acids, with a molecular weight of 19.8 kDa. The Cys at position 25 has been substituted with Ile.
<b>Synonyms:</b>	HHG-1
<b>Species of Origin:</b>	Mouse
<b>Expressed in:</b>	E. coli
<b>Type:</b>	Recombinant Protein
<b>Low Endotoxin:</b>	Yes

**Target Details**

<b>Gene Name:</b>	Shh
<b>Purity/Specificity:</b>	Sonic Hedgehog purity was determined to be greater than 97% as determined by analysis by UV-Spectroscopy at 280nm and by reducing and non-reducing SDS-PAGE.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q62226</a></li></ul>

## Application Details

<b>Suggested Applications:</b>	Cellular Assay (Based on references)
<b>Application Note:</b>	Sonic Hedgehog Recombinant Protein has been tested by biological activity and is suitable as a control for polyclonal or monoclonal anti-Sonic Hedgehog in immunological assays.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>Other:</b>	Endotoxin Level: Measured by kinetic LAL analysis and is typically $\leq 1$ EU/ $\mu$ g protein. Biologic Activity: The activity is measured by the dose-dependent induction of alkaline phosphatase production by C3H/10T1/2 (CCL-226) fibroblasts and is typically 0.6-3 $\mu$ g/mL.

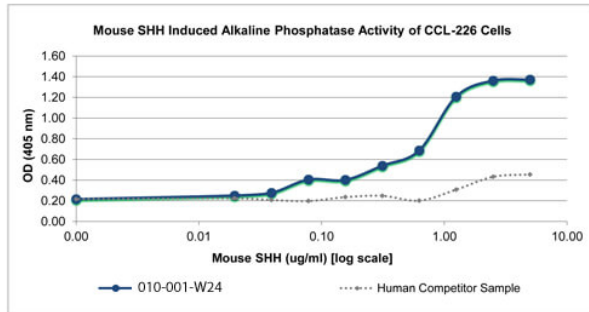
## Formulation

<b>Physical State:</b>	Lyophilized
<b>Buffer:</b>	0.01 M Sodium Phosphate, pH 7.5
<b>Preservative:</b>	None
<b>Stabilizer:</b>	None
<b>Reconstitution Volume:</b>	5 $\mu$ l (5-50 $\mu$ l)
<b>Reconstitution Buffer:</b>	Restore with deionized water (or equivalent)

## Shipping & Handling

<b>Shipping Condition:</b>	Ambient
<b>Storage Condition:</b>	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
<b>Expiration:</b>	Expiration date is six (6) months from date of receipt.

## Images



### SDS-PAGE

Bioactivity of Mouse Sonic Hedgehog Recombinant Protein. Serial dilutions of Mouse SHH, starting at 5 ug/mL, were added to with CCL-226 cells in the presence of 1 uM Retinoic Acid. Alkaline phosphatase was measured and the linear portion of the curve was used to calculate the ED50. The ED50 of Mouse SHH is 0.48-0.72 ug/mL. This value is comparable to the typical expected range of human SHH is 0.8-1 ug/mL.

## Disclaimer

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