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Datasheet for 009-001-W24-0005

rHuman Sonic Hedgehog Protein

Overview

Description:	Human Sonic Hedgehog Recombinant Protein - 009-001-W24-0005
Item No.:	009-001-W24-0005
Size:	5 µg
Applications:	SDS-PAGE, Cellular Assay
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	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 human SHH is a non-glycosylated protein, containing 175 amino acids, with a molecular weight of 19.7 kDa. The Cys at position 25 has been substituted with Ile.
Synonyms:	HHG-1
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	SHH
Purity/Specificity:	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.
Relevant Links:	• UniProtKB - Q15465

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Sonic Hedgehog Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Sonic Hedgehog in immunological assays.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Endotoxin Level: Measured by kinetic LAL analysis and is typically ≤ 1 EU/µg 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 0.8-1 µg/mL.

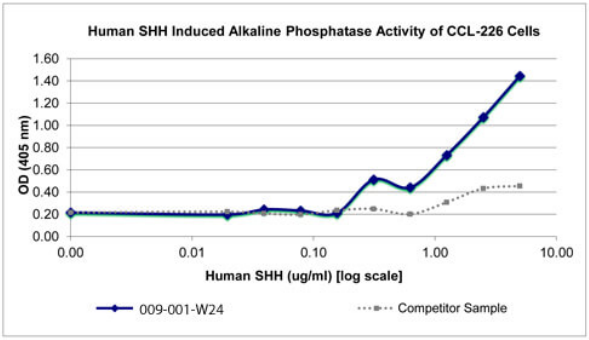
Formulation

Physical State:	Lyophilized
Buffer:	0.01 M Sodium Phosphate, pH 7.5
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	5µl (5-50µl)
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

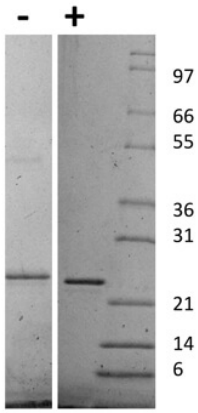
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results 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.
Expiration:	Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

Bioactivity of Human Sonic Hedgehog Recombinant Protein. Serial dilutions of Human 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 us used to calculate the ED50. The ED50 of Human SHH is 1.2-1.8 ug/mL. The typical expected range is 0.8-1 ug/mL.



SDS-PAGE

SDS-PAGE of Human Sonic Hedgehog Recombinant Protein. Lane 1: 1 µg Human SHH in non-reducing conditions (-). Lane 2: 1 µg Human SHH in reducing conditions (+). Lane 3: Molecular weight marker. Human SHH has a predicted MW of 19.7 kDa.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.