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Datasheet for 009-001-U84-0010

# rHuman FGF154 basic Protein

## Overview

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|---|---|
| **Description:** | Human Fibroblast Growth Factor 154 basic Recombinant Protein - 009-001-U84-0010 |
| **Item No.:** | 009-001-U84-0010 |
| **Size:** | 10 µg |
| **Applications:** | Cellular Assay |
| **Origin:** | Human |
| **Expressed in:** | E. coli |

## Product Details

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| **Background:** | Fibroblast Growth Factors (FGFs) are a 22 member family of proteins known to be involved in angiogenesis, wound healing and embryonic development. As a family, they bind to heparin and signal through four receptor tyrosine kinases called, FGFR1, 2, 3 and 4. Although the mechanism remains unclear, FGF-basic 154, also known as FGF-2, is a critical component in keeping embryonic stem cells undifferentiated in cell culture systems. Recombinant human FGF-b 154 (FGF-2) is a non-glycosylated protein, containing 154 amino acids, with a molecular weight of 17.2 kDa. |
| **Synonyms:** | Heparin-binding growth factor 2 (HBGF-2), Prostatropin, Basic fibroblast growth factor (bFGF) |
| **Species of Origin:** | Human |
| **Expressed in:** | E. coli |
| **Type:** | Recombinant Protein |
| **Low Endotoxin:** | Yes |

## Target Details

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| **Gene Name:** | FGF2 |
| **Purity/Specificity:** | Hu Fibroblast Growth Factor 154 basic 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 - P09038 |

## Application Details

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| **Suggested Applications:** | Cellular Assay (Based on references) |
| **Application Note:** | Fibroblast Growth Factor 154 basic Recombinant Protein has been tested by biological activity and is suitable as a control for polyclonal or monoclonal anti-Fibroblast Growth Factor 154 basic in immunological assays. Lyophilized from 10 mM sodium phosphate, 75 mM sodium chloride, pH 7.5. |
| **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 determined by the dose-dependent proliferation of mouse BALB/c 3T3 cells and is typically less than 1 ng/mL. |

## Formulation

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| **Physical State:** | Lyophilized |
| **Concentration:** | 0.1 mg/ml |
| **Buffer:** | See application note. |
| **Preservative:** | None |
| **Stabilizer:** | None |
| **Reconstitution Volume:** | 10µl (10-100µl) |
| **Reconstitution Buffer:** | Restore with deionized water (or equivalent) |

## Shipping & Handling

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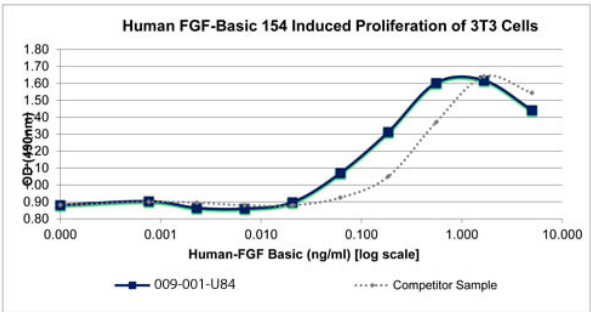
| **Shipping Condition:** | Ambient |
| **Storage Condition:** | Store vial at -20° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). 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 Fibroblast Growth Factor 154 basic Recombinant Protein. Serial dilutions of Human FGF Basic 154, starting at 5 ng/mL, were added to NIH 3T3 cells. Cell proliferation was measured after 41 hours and the linear portion of the curve was us used to calculate the ED50. The ED50 of Human FGF Basic is 0.1-0.14 ng/mL. This value is comparable with the typical expected range of < 1 ng/mL.

## 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.