

**Datasheet for 009-001-U91-0010****rHuman Galectin-1 Protein****Overview**

|                      |                                                         |
|----------------------|---------------------------------------------------------|
| <b>Description:</b>  | Human Galectin-1 Recombinant Protein - 009-001-U91-0010 |
| <b>Item No.:</b>     | 009-001-U91-0010                                        |
| <b>Size:</b>         | 10 µg                                                   |
| <b>Applications:</b> | SDS-PAGE, Cellular Assay                                |
| <b>Origin:</b>       | Human                                                   |
| <b>Expressed in:</b> | E. coli                                                 |

**Product Details**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>        | Galectin-1 belongs to a large family of carbohydrate-binding proteins called lectins. Galectin-1 can be either monomeric or homodimeric and is found in a wide variety of cells and tissue types. Galectin-1 can control cell growth, proliferation, induce apoptosis of activated T cells while it can also modulate cytokine secretion or inhibit pro-inflammatory cytokine production. Galectin-1 plays an important role in acute and chronic inflammation. Recombinant human Galectin-1 is a non-glycosylated protein, containing 134 amino acids, with a molecular weight of 14.5 kDa. |
| <b>Synonyms:</b>          | 14 kDa lectin, Beta-galactoside-binding lectin L-14-I, Galaptin, HBL, HPL, Lactose-binding lectin 1, S-LAC lectin-I, L-14                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species of Origin:</b> | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Expressed in:</b>      | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Type:</b>              | Recombinant Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Low Endotoxin:</b>     | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

**Target Details**

|                            |                                                                                                                                                          |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name:</b>          | LGALS1                                                                                                                                                   |
| <b>Purity/Specificity:</b> | Galectin-1 purity was determined to be greater than 95% 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 - P09382</a></li></ul>                                                                     |

## Application Details

|                                |                                                                                                                                                                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b>    | SDS-PAGE                                                                                                                                                                                                                                                           |
| <b>Suggested Applications:</b> | Cellular Assay (Based on references)                                                                                                                                                                                                                               |
| <b>Application Note:</b>       | Galectin-1 Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Galectin-1 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 determined by the ability to induce chemotaxis of human blood monocytes or THP-1 with a typical range of 0.5 – 3.0 $\mu$ g/mL. |

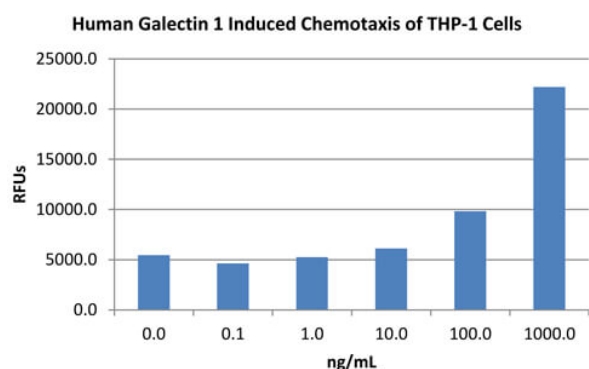
## Formulation

|                               |                                              |
|-------------------------------|----------------------------------------------|
| <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> | 10 $\mu$ l (10-100 $\mu$ l)                  |
| <b>Reconstitution Buffer:</b> | Restore with deionized water (or equivalent) |

## Shipping & Handling

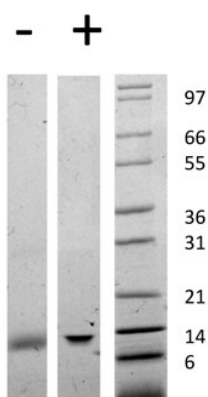
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 Human Galectin-1 Recombinant Protein. Human THP-1 cells were allowed to migrate to Human Galectin 1 at (0, 0.1, 1, 10, 100 and 1000 ng/mL). After 1 hour, cells that migrated were counted using a luminescent substrate and displayed on the bar graph above. Significant increases in migration over basal levels were seen in response to Human Galectin 1 starting at 100 ng/mL. This value is comparable to expected ranges of a chemotactic response at 2.5 ug/mL of primary human monocytes.



#### SDS-PAGE

SDS-PAGE of Human Galectin-1 Recombinant Protein. Lane 1: 1 µg Human Galectin-1 in non-reducing conditions (-). Lane 2: 1 µg Human Galectin-1 in reducing conditions (+). Lane 3: Molecular weight marker. Human Galectin-1 has a predicted MW of 14.5 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.