

## Datasheet for 009-001-W29-0020

**rHuman TNF Receptor-1 Protein****Overview**

|                      |                                                                                    |
|----------------------|------------------------------------------------------------------------------------|
| <b>Description:</b>  | Human Tumor Necrosis Factor Receptor Type 1 Recombinant Protein - 009-001-W29-0020 |
| <b>Item No.:</b>     | 009-001-W29-0020                                                                   |
| <b>Size:</b>         | 20 µg                                                                              |
| <b>Applications:</b> | SDS-PAGE, Cellular Assay                                                           |
| <b>Origin:</b>       | Human                                                                              |
| <b>Expressed in:</b> | E. coli                                                                            |

**Product Details**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>        | TNF Receptor 1 (TNFR1) is expressed in most tissues and is activated by soluble and membrane-bound TNF $\alpha$ . TNFR1 is known to activate NF- $\kappa$ B and MAPK pathways to induce inflammation, promote apoptotic cell death, inhibit tumorigenesis and inhibit viral replication. The soluble form of recombinant human TNFR1 is a non-glycosylated protein, containing 162 amino acids, with a molecular weight of 18.3 kDa. |
| <b>Synonyms:</b>          | Tumor necrosis factor receptor 1 (TNF-R1), Tumor necrosis factor receptor type 1, TNFAR, TNFR55, p55, p60, CD120a                                                                                                                                                                                                                                                                                                                    |
| <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>          | TNFRSF1A                                                                                                                                                                            |
| <b>Purity/Specificity:</b> | Tumor Necrosis Factor Receptor Type 1 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 - P19438</a></li></ul>                                                                                                |

## Application Details

|                                |                                                                                                                                                                                                                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b>    | SDS-PAGE                                                                                                                                                                                                                                                                                                                     |
| <b>Suggested Applications:</b> | Cellular Assay (Based on references)                                                                                                                                                                                                                                                                                         |
| <b>Application Note:</b>       | Tumor Necrosis Factor Receptor Type 1 Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Tumor Necrosis Factor Receptor Type 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 its ability to inhibit the cytolytic effects 0.25 ng/mL TNF $\alpha$ has on mouse L929 cells, in the presence of Actinomycin D, and is typically between 0.045-0.09 ng/mL. |

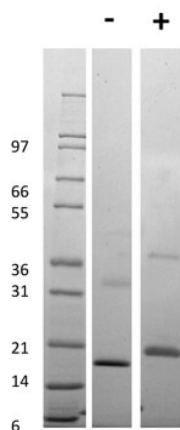
## Formulation

|                               |                                              |
|-------------------------------|----------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                  |
| <b>Concentration:</b>         | 0.1mg/ml                                     |
| <b>Buffer:</b>                | 0.01 M Sodium Phosphate, pH 7.5              |
| <b>Preservative:</b>          | None                                         |
| <b>Stabilizer:</b>            | None                                         |
| <b>Reconstitution Volume:</b> | 20 $\mu$ l (20-200 $\mu$ 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

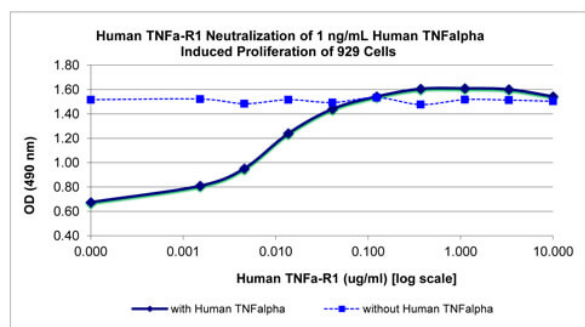


### SDS-PAGE

SDS-PAGE of Human Tumor Necrosis Factor Receptor Type 1 Recombinant Protein. Lane 1: Molecular weight marker. Lane 2: 1 µg Human TNF-Receptor 1 in non-reducing conditions (-). Lane 3: 1 µg Human TNF-Receptor 1 in reducing conditions (+). Human TNF-Receptor 1 has a predicted MW of 18.3 kDa.

### SDS-PAGE

Bioactivity of Human Tumor Necrosis Factor Receptor Type 1 Recombinant Protein. 929 cells were cultured with 1 ng/mL Human TNF-alpha and 1 µg/mL Actinomycin D, plus serial dilutions of Human TNF-Receptor 1 from 0-10 µg/mL. Cell proliferation was measured after 24 hours and the linear portion of the curve was used to calculate the ED50. The ED50 of Human TNF Receptor 1 is 8-12 ng/mL. This typical expected value for this activity is 9-45 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.