

Recombinant Protein Technical Manual Recombinant Human IgG1 Fc Protein (Active)

RPES0971

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|      |      | <u>( .</u> |     |  |

| Product SKU: RPES0971 | Size: 10µg                   |
|-----------------------|------------------------------|
| Species: Human        | Expression host: Human Cells |
| Uniprot: P01857       |                              |

| Protein Information: |  |  |  |
|----------------------|--|--|--|
| Molecular Mass:      | 41.6 kDa   |  |  |
| AP Molecular Mass:   | 32 kDa   |  |  |
| Tag:                 |  |  |  |
| Bio-activity:        | Immobilized Human IgG1 Fc at 2μg/ml(100 μl/well) can bind Human CD64-His(Cat:<br>PKSH033655). The ED50 of Human IgG1 Fc is 47.99 ng/ml .   |  |  |
| Purity:              | > 95 % as determined by reducing SDS-PAGE.   |  |  |
| Endotoxin:           | < 1.0 EU per $\mu g$ as determined by the LAL method.  |  |  |
| Storage:             | Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.<br>Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of<br>reconstituted samples are stable at < -20°C for 3 months. |  |  |
| Shipping:            | This product is provided as lyophilized powder which is shipped with ice packs.  |  |  |
| Formulation:         | Lyophilized from a 0.2 $\mu$ m filtered solution of 20mM PB,150mM NaCl,pH7.4.  |  |  |
| Reconstitution:      | Please refer to the printed manual for detailed information.   |  |  |
| Application:         | Functional ELISA   |  |  |
| Synonyms:            | g gamma chain C region;IGHG1   |  |  |

## Sequence: Asp104-Lys330

## Background:

As a monomeric immunoglobulin that is predominately involved in the secondary antibody response and the only isotype that can pass through the human placenta, Immunoglobulin G (IgG) is synthesized and secreted by plasma B cells, and constitutes 75% of serum immunoglobulins in humans. IgG antibodies protect the body against the pathogens by agglutination and immobilization, complement activation, toxin neutralization, as well as the antibody-dependent cell-mediated cytotoxicity (ADCC). IgG tetramer contains two heavy chains (50 kDa ) and two light chains (25 kDa) linked by disulfide bonds, that is the two identical halves form the Y-like shape. IgG is digested by pepsin proteolysis into Fab fragment (antigen-binding fragment) and Fc fragment ("crystallizable" fragment). IgG1 is most abundant in serum among the four IgG subclasses (IgG1, 2, 3 and 4) and binds to Fc receptors (FcyR ) on phagocytic cells with high affinity.