

Recombinant Protein Technical Manual Recombinant Human KLRB1/CD161 Protein (Fc Tag)

RPES3024

Product Data:

Product SKU: RPES3024 **Size:** 10μg

Species: Human Cells

Uniprot: Q12918

Protein Information:

Molecular Mass: 45.6 kDa

AP Molecular Mass: 130 kDa

Tag: C-Fc

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: $< 1.0 \text{ EU per } \mu\text{g}$ as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

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 μm filtered solution of PBS, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Killer cell lectin-like receptor subfamily B member 1;KLRB1;CLEC5B;

NKRP1A;CD161;Natural killer cell surface protein P1A;NKR-P1A;HNKR-P1a;C-type

lectin domain family 5 member B;KLRB1

Immunogen Information:

Sequence: Gln67-Ser225

Background:

Killer cell lectin-like receptor subfamily B, member 1(KLRB1) is a single-pass type II membrane protein which contains 1 C-type lectin domain. KLRB1 plays an inhibitory role on natural killer (NK) cells cytotoxicity. Activation results in specific acid sphingomyelinase/SMPD1 stimulation with subsequent marked elevation of intracellular ceramide. Activation also leads to AKT1/PKB and RPS6KA1/RSK1 kinases stimulation as well as markedly enhanced T-cell proliferation induced by anti-CD3. It acts as a lectin that binds to the terminal carbohydrate Gal-alpha(1,3)Gal epitope as well as to the N-acetyllactosamine epitope. Binds also to CLEC2D/LLT1 as a ligand and inhibits NK cell-mediated cytotoxicity as well as interferon-gamma secretion in target cells.