CD161 Protein, Cynomolgus (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P77593
Synonyms:	KLRB1; CLEC5B; NKRP1A; NKR-P1A; HNKR-P1a; CD161; Ly59; NKR; NKRP1; NKR-P1; NKRP1ANKR
Species:	Cynomolgus
Source:	HEK293
Accession:	XP_005570142 (Q67-L227)
Gene ID:	102139342
Molecular Weight:	37-42 kDa

PROPERTIES

Biological Activity	Immobilized Biotinylated Cynomolgus CD161, His Tag at 0.5μg/ml (100μl/Well) on the streptavidin precoated plate (5μg/ml). Dose response curve for Anti-CD161 Antibody, hFc Tag with the EC_{50} of 12.8ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	CD161 assumes a crucial role in inhibiting natural killer (NK) cell cytotoxicity. Upon activation, CD161 stimulates specific acid sphingomyelinase/SMPD1, resulting in a significant increase in intracellular ceramide levels. The activation process also leads to the stimulation of AKT1/PKB and RPS6KA1/RSK1 kinases, along with a marked enhancement of T-cell proliferation induced by anti-CD3. Functioning as a lectin, CD161 binds to the terminal carbohydrate Gal-alpha(1,3)Gal epitope and the N-acetyllactosamine epitope. Furthermore, it acts as a ligand for CLEC2D/LLT1, inhibiting NK cell-mediated cytotoxicity and interferon-gamma secretion in target cells. Existing as a homodimer with disulfide linkage, CD161 interacts with acid sphingomyelinase/SMPD1, contributing to its multifaceted regulatory functions in immune responses[1][2][3].

Caution: Product has not been fully validated for medical applications. For research use only.

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