

## **TECHNICAL DATA SHEET**

# CyFlow™ CD161 Purified Anti-Rt; Clone 10/78



**BG633525** 

# For Research Use Only. Not for use in diagnostic or therapeutic procedures.

#### **Specifications**

Antigen	CD161
Alternative Names	NKR-P1A, NKRP1A, NKR
Clone	10/78
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Rat
Negative Species Reactivity	_
Quantity [Concentration]	0.1 mg [ 1 mg/ml ]
Immunogen	Splenic cells purified from the LEW rat

### **Specificity**

The mouse monoclonal antibody 10/78 recognizes CD161 antigen, an approximately 30 kDa type II transmembrane C-type lectin receptor, expressed on the plasma membrane of NK cells, dendritic cells,

#### **Contact Information:**

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: <u>info@sysmex-partec.com</u>

Rev 1.0 Date: 2016-07-15 EN CyFlow™ CD161 Purified



activated monocytes and a subset of T cells as a disulphide-linked homodimer. A common epitope on rat CD161a and b isoforms is detected.

#### **Application**

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- · Western blot
- Immunohistochemistry (frozen sections)
- Radioimmunoassay

#### **Storage Buffer**

The reagent is provided in phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

#### Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

#### **Background Information**

CD161 (Nkrp1; natural killer receptor protein 1 or Klrb1; killer cell lectin-like receptor subfamily b member 1) is a disulphide-linked homodimeric receptor, which is involved in regulation of NK cell and NKT cell function. It is expressed on rat NK cells, subset of T cells, dendritic cells, and activated monocytes. Although human CD161 is expressed as one isoform, the rat CD161 has three isoforms, referred to as CD161a, b, and c. These proteins contain C-terminal C-type lectin extracellular domain, a transmembrane domain, and N-terminal intracellular domain, which contains ITIM motif, such as CD161b, and displays inhibitory function, or does not contain ITIM motif, thus also not the inhibitory function, such as CD161a.

#### References

 Sedgwick JD, Ford AL, Foulcher E, Airriess R: Central nervous system microglial cell activation and proliferation follows direct interaction with tissue-infiltrating T cell blasts. J Immunol. 1998 Jun 1; 160(11):5320-30. < PMID: 9605131 >

Rev 1.0 Date: 2016-07-15 EN CyFlow™ CD161 Purified



- Tliba O, Chauvin A, Le Vern Y, Boulard C, Sbille P: Evaluation of the hepatic NK cell response during the early phase of Fasciola hepatica infection in rats. Vet Res. 2002 May-Jun; 33(3):327-32.
   < PMID: 12056483 >
- May E, Dorris ML, Satumtira N, Iqbal I, Rehman MI, Lightfoot E, Taurog JD: CD8 alpha beta T cells are not essential to the pathogenesis of arthritis or colitis in HLA-B27 transgenic rats. J Immunol. 2003 Jan 15; 170(2):1099-105. < PMID: 12517979 >
- Stephens LA, Barclay AN, Mason D: Phenotypic characterization of regulatory CD4+CD25+ T cells in rats. Int Immunol. 2004 Feb; 16(2):365-75. < PMID: 14734622 >
- Chang CJ, Tai KF, Roffler S, Hwang LH: The immunization site of cytokine-secreting tumor cell vaccines influences the trafficking of tumor-specific T lymphocytes and antitumor efficacy against regional tumors. J Immunol. 2004 Nov 15; 173(10):6025-32. < PMID: 15528337 >
- Teshima R, Nakamura R, Nakamura R, Hachisuka A, Sawada JI, Shibutani M: Effects of exposure to decabromodiphenyl ether on the development of the immune system in rats. J Health Sci. 2008; 54(4):382-389. < No PMID >
- Kraszula L, Eusebio M, Kupczyk M, Kuna P, Pietruczuk M: The use of multi-color flow cytometry for identification of functional markers of nTregs in patients with severe asthma. Pneumonol Alergol Pol. 2012; 80(5):389-401. < PMID: 22926900 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/s	services.
--	-----------

#### **Contact Information:**

Rev 1.0 Date: 2016-07-15 EN CyFlow™ CD161 Purified