TECHNICAL DATA SHEET

CyFlow™ CD222 Purified
Anti-Hu; Clone MEM-238

REF **BJ078043**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD222
Alternative Names	IGF2R, CIMPR, M6P-R, MPR1
Clone	MEM-238
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Non-Human Primates
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Recombinant Vaccinia virus encoding CD222

Specificity

The mouse monoclonal antibody MEM-238 recognizes an epitope between domains 2 and 5 of CD222 antigen, a ubiquitously expressed 250 kDa multifunctional type I transmembrane protein. The majority of

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CD222 is found in the late endosomal/prelysosomal compartment, 5-10% in the plasma membrane and the truncated (220 kDa) form of CD222 is present in human and bovine serum.

Application

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

- Flow cytometry
- Western blot

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

CD222 (CIMPR; cation-independent mannose 6-phosphate receptor or IGF2 receptor) is a ubiquitously expressed 250 kDa transmembrane protein. No more than 10% of CD222 is present on the cell surface where it serves as a multifunctional receptor. Intracellular (major) fraction of CD222 is involved in transport of newly synthesized lysosomal enzymes modified by mannose 6-phosphate from Golgi apparatus to lysosomes. The cell surface CD222 binds and internalizes exogeneous mannose 6-phosphate-containing ligands. Importantly, CD222 is crutial for internalization and degradation of insulin-like growth factor 2, thus controling cell growth. CD222 also complexes CD87 (urokinase-type plasminogen-activator receptor), plasminogen and latent TGF-β, last but not least CD222 serves as a receptor for heparanase and even for Listeria.

References

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- Leksa V, Godar S, Cebecauer M, Hilgert I, Breuss J, Weidle UH, Horejsi V, Binder BR, Stockinger H: The N terminus of mannose 6-phosphate/insulin-like growth factor 2 receptor in regulation of fibrinolysis and cell migration. J Biol Chem. 2002 Oct 25; 277(43):40575-82. < PMID: 12189157 >
- Gasanov U, Koina C, Beagley KW, Aitken RJ, Hansbro PM: Identification of the insulin-like growth factor II receptor as a novel receptor for binding and invasion by Listeria monocytogenes. Infect Immun. 2006 Jan; 74(1):566-77. < PMID: 16369013 >
- Wood RJ, Hulett MD: Cell surface-expressed cation-independent mannose 6-phosphate receptor (CD222 binds enzymatically active heparanase independently of mannose 6-phosphate to promote extracellular matrix degradation. J Biol Chem. 2008 Feb 15; 283(7):4165-76. < PMID: 18073203 >

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

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