

1A-315-T025

Monoclonal Antibody to CD222 Allophycocyanin (APC) conjugated (25 tests)

Clone:	MEM-238
Isotype:	Mouse IgG1
Specificity:	The antibody MEM-238 recognizes an epitope between amino acids 192-697 of CD222 (IGF2 receptor), a ubiquitously expressed 250 kDa multifunctional type I transmembrane protein. The majority of 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. HLDA VII; WS Code 70640
Regulatory Status:	RUO
Immunogen:	Recombinant Vaccinia virus encoding CD222.
Species Reactivity:	Human, Non-Human Primates
Preparation:	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.25 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD222 (CIMPR, cation-independent mannose 6-phosphate receptor; 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 exogenous mannose 6-phosphate-containing ligands. Importantly, CD222 is crucial for internalization and degradation of insulin-like growth factor 2, thus controlling cell growth. CD222 also complexes CD87 (urokinase-type plasminogen-activator receptor), plasminogen and latent TGF-beta, last but not least CD222 serves as a receptor for heparanase and even for Listeria.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Leukocyte Typing VII., Mason D. et al. (Eds.), Oxford University Press (2002).
- *Gasarov 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.
- *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.
- *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.
- *Schatzmaier P, Supper V, Göschl L, Zwirzitz A, Eckerstorfer P, Ellmeier W, Huppa JB, Stockinger H: Rapid multiplex analysis of lipid raft components with single-cell resolution. *Sci Signal*. 2015 Sep 22;8(395):rs11
- *Leksa V, Pfisterer K, Ondrovičová G, Binder B, Lakatošová S, Donner C, Schiller HB, Zwirzitz A, Mrvová K, Pevala V, Kutejová E, Stockinger H: Dissecting mannose 6-phosphate-insulin-like growth factor 2 receptor complexes that control activation and uptake of plasminogen in cells. *J Biol Chem*. 2012 Jun 29;287(27):22450-62.
- *Schiller HB, Szekeres A, Binder BR, Stockinger H, Leksa V: Mannose 6-phosphate/insulin-like growth factor 2 receptor limits cell invasion by controlling α V β 3 integrin expression and proteolytic processing of urokinase-type plasminogen activator receptor.
- *Leksa V, Loewe R, Binder B, Schiller HB, Eckerstorfer P, Forster F, Soler-Cardona A, Ondrovičová G, Kutejová E, Steinhuber E, Breuss J, Drach J, Petzelbauer P, Binder BR, Stockinger H: Soluble M6P/IGF2R released by TACE controls angiogenesis via blocking plasminogen activation.
- *Machacek C, Supper V, Leksa V, Mitulovic G, Spittler A, Drbal K, Suchanek M, Ohradnova-Repic A, Stockinger H: Folate Receptor β ; Regulates Integrin CD11b/CD18 Adhesion of a Macrophage Subset to Collagen. *J Immunol*. 2016 Sep 15;197(6):2229-38.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.

For laboratory research only, not for drug, diagnostic or other use.