



1F-315-T025

Monoclonal Antibody to CD222 Fluorescein (FITC) 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 Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC 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 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.5 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.

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