

1P-790-T100

Monoclonal Antibody to CD222 Phycoerythrin (PE) conjugated (100 tests)

Clone: MEM-240
Isotype: Mouse IgG1

Specificity: The antibody MEM-238 recognizes an epitope between amino acids 698-1262 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 70641

Regulatory Status: RUO

Immunogen:

Recombinant Vaccinia virus encoding CD222.

Species Reactivity: Human

Preparation: The purified antibody is conjugated with R-Phycoerythrin (PE) 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 μ l reagent / 100 μ l of whole blood or 10 $^{\circ}$ cells in a suspension.

The content of a vial (1 ml) is sufficient for 100 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 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-beta, last but not least CD222 serves as a receptor for heparanase and even

for Listeria.



PRODUCT DATA SHEET

References:

*Schiller HB, Szekeres A, Binder BR, Stockinger H, Leksa V: Mannose 6-phosphate/insulin-like growth factor 2 receptor limits cell invasion by controlling alphaVbeta3 integrin expression and proteolytic processing of urokinase-type plasminogen activator receptor. Mol Biol Cell. 2009 Feb;20(3):745-56.

*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.

*Leksa V, Loewe R, Binder B, Schiller HB, Eckerstorfer P, Forster F, Soler-Cardona A, Ondrovicová 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. Circ Res. 2011 Mar 18;108(6):676-85.

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